The Mentally Ill: Their Care and Treatment in Missouri

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General Assembly of the State of Missouri Committee on Legislative Research

Report No. 8



THE MENTALLY ILL: THEIR CARE AND TREATMENT IN MISSOURI

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- 2. Provide a research service for members of the legislature.
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This report, which is one of several on which the Research Staff of the Committee is at work, is intended to be a factual source of information with regard to a problem which may be placed before the General Assembly in the near future.

This report does not contain recommendations.

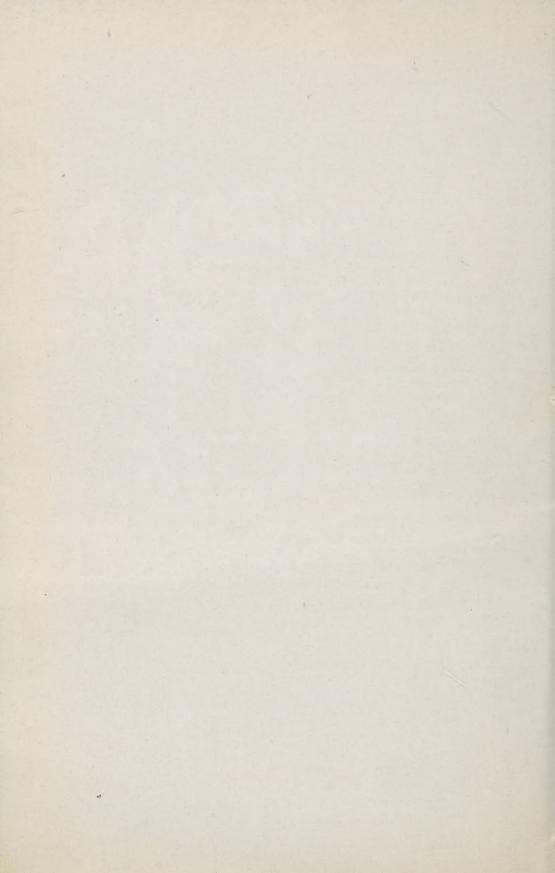
The Committee will cause similar research studies of legislative problems to be made upon the written request of any member of the General Assembly, to the extent that the size of its research staff permits.

All publications of the Committee are available to any citizen of Missouri interested in the particular subjects considered.

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I. Mental Illness

The cost of mental illness, measured by the expense of care and treatment and the loss of earning power, is staggering. It is estimated that it costs the United States \$750 million dollars annually and that the trend is steadily upward. And this does not count the social loss—one which cannot be adequately measured—the disruption of homes and families and the misery endured both by the patient and his relatives.

The current administrative comment that "there is not enough of anything but patients" in mental hospitals throughout the country, rests almost unchallenged at the moment. Overstrained as the statement may be, it has enough basis in fact to warrant serious attention. The increased population of these institutions, particularly in the last twenty years, has made the complaint more than a mere alarm of hospital administrators.

In considering the problems involved it ought to be helpful first of all to examine the changing concepts of mental illness both from the professional and lay points of view, and to inquire briefly into the nature of mental illness itself. In so doing, the purpose is not to add to the body of knowledge on these subjects but to recognize that some acquaintance with these two elements is essential to a reasonable understanding of the total picture.

No suffering with which mankind has been afflicted has a more sordid history. From the ancient conceit that the mentally disturbed were "possessed with devils" through tedious centuries these unfortunates have been either seared by hatred or damned with derision. They have been chained, chastised and forgotten. As a matter of fact, it was only at the beginning of the twentieth century that the day of the "lunatic asylum," with all the ugly implications of the name, passed from the American scene. These were the days when confinement was almost the only function of the "asylum." None but the seriousing also arbed was admitted. Society had to be protected. During the greater part of the nineteenth century, treatment consisted principally of blood-letting, emetics, purgatives, forcible restraint and, on occasion, corporal punishment. As to the restoration of their patients to society, physicians too often seemed pessimistic or indifferent.

Slowly but certainly during the past fifty years the attitude of the medical profession has changed. It is now accepted that early and adequate treatment of the mentally disturbed is no less effective than comparable treatment of the physically ill. A study of the causes and nature of mental illness has occupied the time and thought of eminent,

humanitarian men and women. New therapies have been devised through experiment and research. Psychiatrists and hospital administrators are making honest efforts to transform their institutions from mere confinement and custodial centers into medical and psychiatric hospitals for diagnosis, treatment and rehabilitation.

If the modern attitude of the medical profession has reached the present state by slow degrees, the lay concept has faltered even more. In fact, there are still to be found segments of the population which cling to three once popular but misconceived ideas about mental illness: that there is something disgraceful about it, that it is incurable, and that it strikes only those who are inherently weak. In the last quarter century or more there has arisen a new interest in the human mind and personality. What has occasioned this may be uncertain but it is surely true that this new interest exists and that many books on psychology and related subjects have been written for the lay reader which have been high on the list of best sellers. The result has been a slowly changing attitude toward the whole problem. The public is gradually coming to accept the general propositions that mental illness is no more disgraceful than physical illness, that it is not necessarily incurable and that, like lightning, it may strike in the most unexpected places.

If this new attitude has been beneficial to the afflicted, it has surely posed new problems for the administrators of mental hospitals and the public officials on whom rests the responsibility for their operation and maintenance. Some hope of recovery can now be extended to many patients and as a result there has been an increased willingness for persons to seek treatment in mental hospitals. In addition, because of the long duration of the average illness and the expense involved, the care and treatment of such cases in private hospitals are beyond the budgets of many of our people. The result is a strain on our hospital facilities and a constant lag between capacity and patient population. The institutional care of mental patients therefore has become a major problem of the nation. There is evidence to support the view that the problem cannot be completely solved by the construction of more buildings, but that an attack must be made on all fronts if the enormous economic and social losses of this most tragic illness are to be minimized.

TYPES OF MENTAL ILLNESS

At the risk of oversimplification it may be said that there are two broad classifications in which all mental illness can be grouped. The first of these is called *organic* and includes those mental afflictions in which the underlying cause is the deterioration of some organ of the body either through disease or severe injury. In this group are the mental ailments of the aged in which there is a gradual impairment of the organs and tissues of the body.

The second is termed *functional* and is applied to those mental diseases in which there is no apparent physical cause. Psychiatrists generally agree that functional mental illness is environmental in nature and is the result of the tensions and strains of everyday living combined with an inability on the part of the individual to withstand them. This type of disease is illustrated by the collapse which sometimes follows severe emotional shock such as the death of a close relative or a financial reverse.

Mental diseases may also be classified by the intensity of the illness. Mental aberrations are only a matter of the degree of variation from the so-called normal. Each one of us is troubled more or less regularly by fears, anxieties and worries. Each one of us has his own idiosyncrasies, but it is only when these aspects of the personality become extravagant that a person is said to be mentally ill. The term psychoneurosis or neurcsis is applied to those mental diseases in which the individual may be maladjusted but does not lose contact with the world of reality. In contrast to the psychoneurotic, the psychotic individual becomes completely disorganized and unable to carry on the activities of normal living. When the mental alienation has reached this state the person is said to have a psychosis. Because the psychotic usually requires hospitalization, it is this type of person with which this report is primarily concerned. A psychosis may be either organic or functional.

While this report is written for the use of the lay reader and the use of technical words is avoided whenever possible, it is necessary to define a few such terms.

There are approximately twenty mental derangements which are classified as psychoses and four or five of the relatively mild ailments which are typed as psychoneuroses. As used in this report, the following terms mean: (1) senile psychosis or psychosis of the aged, a mental illness common in aged persons whose organs and tissues have deteriorated; (2) neurosyphilis or syphilis of the central nervous system, an organic disorder due to damage to the brain and nerves in the later stage of syphilis; (3) manic depressive psychosis a mental illness characterized by extreme shifts of mood from elation to depression; (4) dementia praecox or schizophrenia, a severe mental illness characterized principally by a tendency on the part of the patient to cut himself off from the world of reality and substitute a world of fantasy created by his imagination.

MENTAL HOSPITAL POPULATION

It has already been pointed out in general terms that the population of mental institutions in the United States has increased rapidly in recent years. One measure of the incidence of mental illness is the number of persons admitted annually for the first time to mental hospitals. First admissions to all mental hospitals in the United States have increased from 101,000 in 1935 to 142,000 in 1945 (Table 1). This is an increase of over forty per cent. During the same period first admissions to tax-supported mental hospitals increased eighteen per cent.

TABLE 1
FIRST ADMISSIONS TO MENTAL HOSPITALS
UNITED STATES AND MISSOURI
1935 to 1945

Year	All United States mental hospitals	Four Missouri state hospitals
1945	141,718	1535
943	118,402	1443
1941	113,181	1874
1939	110,773	1985
937	110,082	1848
1935	101,462	1691

Source: United States Department of Commerce, Bureau of the Census, Patients in Mental Institutions, 1944, 1945; Biennial Reports of the Board of Managers of the State Eleemosynary Institutions, 1935 to 1944; First Biennial Report of the Division of Mental Diseases, 1945-1946; compiled by the staff of the Committee on Legislative Research.

Another alarming trend is seen in the mental patients that have accumulated in institutions in the twenty-year-period from 1925 to 1945. The population of state mental hospitals in the United States has jumped from 246,000 in 1925 to 438,000 in 1945 (Table 2). This is an increase of seventy-eight per cent, while the general population of the United States increased only twenty-one per cent.

PATIENTS IN STATE MENTAL HOSPITALS AT THE END OF EACH YEAR
UNITED STATES AND MISSOURI
1925 TO 1945

Year	All State mental hospitals	Four Missouri state hospitals
1945	438,864	9036
1940	410,427	9052
1935	353,305	7409
930	292,284	6672
1925	246,486	5648

Source: United States Department of Commerce, Bureau of the Census, Patients in Mental Institutions, 1939, 1944, 1945; Biennial Reports of the Board of Managers of the State Eleemosynary Institutions, 1925, 1930, 1935, 1940; First Biennial Report of the Division of Mental Diseases, 1945-1946; compiled by the staff of the Committee on Legislative Research.

As the understanding of mental illness has changed, the newer function of treatment and cure has assumed greater significance. The problem now is to insure that public mental hospitals will continue their advances as active treatment centers.

II. Treatment in Missouri State Hospitals

In 1847, twenty-six years after her admission to the Union, Missouri made the first provision for the state care of her mentally deranged citizens by authorizing an "asylum for the insane" at Fulton. When this asylum opened its doors four years later, it became the first state institution west of the Mississippi River to provide shelter for the insane. In her subsequent history, Missouri established three additional sanctuaries for victims of mental disease. In 1876 the first patient was admitted to a new asylum at St. Joseph. The institution in Nevada opened in 1887, and the one at Farmington in 1903. Only in this latter year was the designation "state hospital" adopted to replace the earlier label, "asylum for the insane."

The present appreciation of the nature of mental illness has been accompanied by a new approach to the methods of its treatment. When the mentally deranged were thought to be incurable, the favorite therapy was a roof, a bed and three meals a day; but now that these persons are known to benefit from recently-developed medical techniques, the use of every known method of treatment becomes their proper due. It was not until the 1920's that these new therapies became a significant part of the programs in Missouri state hospitals.

ACTIVE TREATMENT PROGRAMS

Shadows of the old asylums are still to be found in the present day mental hospital. They lurk on wards where men and women sit bent in apathy day after day. Records reveal present patients admitted as early as 1896. Although for some patients the mental hospital is a place of treatment and rehabilitation, for others it remains an asylum a place where thousands of lives complete their orbits in a sterile routine of sitting, eating and sleeping. Here are housed patients admitted before the day of shock therapy. Here are housed those not benefited by the most modern techniques. To them is applied the label "chronic." To them is given the treatment called "continued care," the mere preservation of life. These are the custodial patients that comprise ninetyfive per cent of mental hospital populations. The other five per cent are "acute patients"—the ones recently admitted. For them there is greater hope. The earlier the treatment is applied, the better are the chances for improvement. On this principle is founded the active treatment program.

New patients are treated in one building isolated from the rest of the hospital. Here they receive the maximum the hospital has to offer in the way of special therapies. If they improve, they are sent home. If they do not improve, they are transferred to the so-called "back wards," the realm of continued care.

The new clinic buildings, finished around 1938, house the active treatment programs in the four Missouri state hospitals. Here one physician takes responsibility for the intensive treatment of all new patients. He has between 95 and 115 under his care. At only one hospital is a doctor trained in psychiatry in charge of the clinic building. Another is under a general physician with some experience in mental hospitals. At still another, a specialist in internal medicine, with recent experience in psychiatry, is in charge. The active treatment program at one hospital suffers by having no psychiatrist on full-time duty in the clinic building.

It is important to keep in mind that of all patients in Missouri state hospitals, only 5.4 per cent receive active treatment (Table 3).

TABLE 3

PATIENTS RECEIVING ACTIVE TREATMENT

MISSOURI STATE HOSPITALS

JUNE, 1948

	Average daily population	Patients receiving active treatment	Per cent receiving active treatment
Fulton	2564	180	7.0
St. Joseph	2484	109	4.4
Nevada	2068	94	4.5
Farmington	1857	102	5.5
Totals	8973	485	5.4

Source: Compiled by the staff of the Committee on Legislative Research.

PSYCHOTHERAPY

Psychotherapy has for its basis the theory that functional mental illness finds its source in an emotional conflict not properly resolved. The treatment is really nothing more than a skillfully directed conversation between the psychiatrist and the patient through which this conflict may be brought into the open.

The use of psychotherapy in Missouri ranges between the extremes of an intensive program in one hospital to a total lack in another. The shortage of personnel and the press of other duties are given by superintendents as the reasons for the inability to pursue adequately this form of therapy. The interview in connection with the admission of a new patient is, in many cases, the only formal psychotherapy administered. Doctors are so busy giving mental and physical examinations, supervising other therapies, and writing up patient histories, that there is little time left for this treatment which requires at least a half hour for each patient. All new patients do receive some psychotherapy consisting of informal questions and answers at the time the doctors make their rounds of the wards.

The psychiatrist in the clinic building at Fulton expressed a wish to devote eighty per cent of his time to psychotherapy, while actually he can afford only twenty per cent. This psychiatrist explained that he mantained contact with all his patients through casual conversations on the ward, and that he fitted in more formal interviews in his office as the time was available.

The clinic building at St. Joseph state hospital is staffed by one physician and one clinical psychologist. Devoting his full time to psychotherapy, the clinical psychologist is able to cover the majority of the 110 patients in the building. The plan for treatment is to start all new patients on psychotherapy. Those that are too repressed to talk are given electric shock treatments in an attempt to get them in a condition to benefit from psychotherapy.

In contrast, the Nevada hospital is so understaffed that the superintendent readily admits that there is no time for psychotherapy. The patients in the clinic building are cared for by two doctors, one assigned to 680 continued-care patients and another to 760. Because these two doctors are so burdened with the routine work in connection with the newly admitted patients and the tedious correspondence in connection with their custodial patients, they are able to maintain only a minimum of contact with the acutely ill patients in the clinic building.

At Farmington, one physician is responsible for 100 patients in the clinic building. Although he spends most of his time giving special therapies and admitting new patients, he is able to fit in some psychotherapy.

As with other forms of treatment, the use of psychotherapy is in direct proportion to the available personnel. It is notable that the most psychotherapy is given at that hospital which has two staff members assigned to the clinic building, and that the least is given where there is no psychiatrist permanently assigned to such building.

GROUP PSYCHOTHERAPY

Group psychotherapy is a discussion in which five to ten persons participate under the guidance of a psychiatrist. Only the hospital at Farmington claimed to make use of this treatment. No established program for the therapy exists, but occasionally the superintendent and a physician go to a ward in the evening and start a group discussion.

The clinical psychologist at St. Joseph explained that group psychotherapy had not yet been attempted there because of the attendants. They rule the wards with iron hands. Peace and quiet is the order of the day. Talking is discouraged. Patients are forbidden to have "bull sessions," thus the natural aftermaths of a session of group psychotherapy are prevented.

"It would be highly inconsistent to encourage patients to participate in an hour of discussion of personal problems, and at the end of the hour expect them to dismiss entirely further discussion with the departure of the therapist," he asserted. Therefore, the use of group psychotherapy in Missouri hospitals awaits the acquisition of attendants trained in the treatment of mental patients.

ELECTRIC SHOCK THERAPY

Electric shock therapy is the most widely used form of treatment in Missouri state hospitals. This comparatively new tool in the psychiatrist's work kit has, to a considerable extent, replaced other forms of therapy. In the treatment a carefully regulated electric current is passed instantaneously through the brain causing a convulsion similar to that produced by epilepsy. After the treatment, most cases seem to be noticeably clearer in their thinking and less troubled by delusions and depressions. Each patient absorbs less than five minutes of the practitioners' time and it is possible to treat as many as fifty patients in one morning. The number of electric shock treatments given each week ranged between 180 at one hospital to 30 at another.

At Fulton, the doctor in charge of the clinic building treats an average of fifteen men and thirty-five women twice a week. He deplored the fact that he is not acquainted with the background of each person treated because of a lack of psychiatric social work. The psychiatrist further pointed out the lack of a serious attitude on the part of the assisting attendants. Three other doctors at this hospital also give electric shock therapy; one treats an average of ten colored men, another ten colored women, and the third five men in the building for the criminal insane.

At St. Joseph, electric shock therapy is given only in the clinic building. One doctor treats about ten men and twenty women per week. Mentally ill men at Nevada are not given electric shock therapy. At the same time the one electric shock machine is being used to treat women patients, the men are given metrazol. About fifteen women receive electric shock therapy twice a week.

At Farmington, ten men and twenty-five women receive electric shock therapy three times a week. In addition, fifteen disturbed or violent patients are given the treatment three times weekly, chiefly as a sedative.

It is not unusual, because of the shortage of personnel, for patients to assist in the application of electric shock therapy in the state hospitals. At one, a patient was assigned the task of holding the electrodes; at others, patients helped attendants hold the recipient of the shock during his convulsion.

Whereas at Fulton and St. Joseph the treatment apparently was administered with a high degree of professional concern, at the other two hospitals it was applied with what seemed an assembly-line precision and speed. Anyone watching the rapid application of electric shocks to patient after patient might get the impression that as more and more are treated it may become increasingly easy for doctors to detach themselves from personal contact with those receiving the treatment. When applied on a mass production scale, the treatment can give the impression of being aimed at simply producing a convulsion in each patient and sending him on his way. When staffs are so inadequate that a psychiatrist lacks the time to maintain contact with the patients he treats, he becomes merely a person who presses a switch. Instead of being able to follow up the shock treatment with psychotherapy, he is ferced to rely largely upon attendants to keep him posted as to the patient's response.

INSULIN THERAPY

In insulin therapy increasing amounts of the drug are given daily until a marked deficiency of sugar in the blood produces a coma. Insulin therapy is used chiefly in cases of schizophrenia, and, since the treatment builds up an appetite, it is sometimes given to those who will not eat.

This treatment is used at only one hospital. At Farmington an average of ten men and fifteen women receive insulin six times weekly. The treatments are given in the clinic building, on the men's side by a medical student and on the women's side by a practical nurse. At the time insulin therapy is in progress the psychiatrist is elsewhere giving electric shock therapy. At no other hospital does this treatment make up part of the therapeutic program in the clinic building.

PREFRONTAL LOBOTOMY

One of the newer techniques in the treatment of mental illness is the prefrontal lobotomy. This operation isolates the frontal lobes from the remainder of the brain by cutting the connecting fibers. The purpose is to cut off the seat of the emotions from the thinking center of the brain. Because the paths of mental activity have been severed, the patient becomes completely disorganized after the operation. He must be reeducated to train new pathways of activity as replacements for the ones eliminated. When the operation is beneficial, the patient will lose his confusion in about two weeks and will be able to relearn normal habits of living. When the operation is not beneficial, the patient's mental status is not improved or it becomes progressively worse. The death rate in the operation is about four per cent.

Prefrontal lobotomies are not being performed in the Missouri state hospitals at present. The operation requires a skilled brain surgeon, and there is none in the state hospitals. Not are there provisions under which surgeons could be called in to perform the operation and be paid by the state.

In the past years lobotomies have been performed at two of the hospitals. A psychiatrist at Farmington, after receiving special training, operated on 207 patients between 1939 and 1941. Later, being transferred to St. Joseph, he performed 16 of the operations in 1943. Since the departure of this doctor from the state service, no lobotomics have been performed.

METRAZOL THERAPY

Metrazol is a drug normally used to stimulate breathing. When applied in large doses, it produces a convulsion. Since a metrazol convulsion is more violent than one produced by electricity, this treatment has to a great extent been replaced by electric shock therapy.

Nevada alone continues to use metrazol as a therapeutic measure. While women patients in the clinic are treated with either electric or metrazol shock therapy, acutely ill men are given metrazol exclusively.

"You'd better behave or the doctor will put you on metrazol," might be the advice of an abendant at Farmington. According to the superintendent, this hospital uses metrazol to "teach combative and mean patients self-control." It was explained that patients have a fear of the treatment because of the momentary depression of breathing just before they lapse into unconsciousness as the convulsion begins. As a result, the hospital has found that patients will "toe the line" rather than submit to a metrazol treatment. A few disturbed custodial patients receive metrazol each week.

FEVER THERAPY

Holding a drinking straw to the mouth of a head protruding from a long metallic box, the fever therapist thus permitted a patient to replace the water that was rolling off his body inside the fever cabinet. This event is to be seen six days a week at the three hospitals which apply fever therapy by means of inductotherm cabinets. When those suffering from neurosyphilis are given high fevers for prolonged periods, the course of the disease is arrested. The treatment only prevents further deterioration—it cannot repair damage already done. High fevers may be induced either by electromagnetic currents or by the germs of malaria.

At the time the hospitals were visited, eight patients were receiving fever therapy at Fulton, seven at Nevada, and twelve at Farmington. At St. Joseph the malaria form of fever therapy is used. Eight or ten high fevers and chills are produced over a period of three weeks. Five patients were under treatment at the time of the visit.

HYDROTHERAPY

Hydrotherapy does not attempt to change a person's mental status. The treatment is designed to calm those who are over-active, excited or restless by means of the soothing motion of water.

In the course of the visits to the four state hospitals, it was found that two are not using hydrotherapy at all, and the other two make only limited use of it. In the clinic building at Fulton, one trained hydrotherapist and one attendant were engaged in treating the acutely ill patients by means of flow tubs and wet packs. By prescribing this treatment each day, the doctor in charge attempts to make hydrotherapy an integral part of his therapeutic program. At St. Joseph, hydrotherapy was not being used at the time of the visit because the one person who had been giving the treatment was being used to fill in as a ward attendant. At Nevada, two attendants were serving as hydrotherapists, carrying out doctor's prescriptions for flow tubs and wet packs in the clinic building. Hydrotherapy has not been used for a number of years at Farmington. Although the superintendent declared that the treatment would be used if there were the necessary personnel, a staff physician expressed the opinion that electric shock therapy replaced the need for hydrotherapy. It is the custom at this hospital to give electric shock therapy as a sedative measure to approximately fifteen agitated patients three times weekly. Hydrotherapy is used to a small degree on this type of patient at the Fulton and Nevada hospitals.

RECREATIONAL THERAPY

A chorus of ninety voices sounds across the sweeping green lawns of the Fulton state hospital on Wednesday afternoons. These old, familiar songs issuing from the clinic building perhaps fan the fading embers of happier memories in the minds of those sitting listlessly on custodial wards. Perhaps this community sing will contribute to the adjustment of some of the newly admitted patients. Perhaps a few more will be saved from the fate of sitting out their lives on a hospital ward. This at least is the hope of the psychiatrist who enlisted the support of a pianist and a choir director in Fulton to conduct these weekly sessions. After an afternoon of singing led by a woman able to arouse a little laughter, after the added treat of doughnuts and fruit juice, perhaps life seems a little less oppressive to these people with sick emotions. Perhaps throughts of home begin to gain dominance over thoughts of self.

Further doubling as a recreational therapist, this same psychiatrist has organized a schedule of sports for the patients in the clinic building at Fulton. However, these morning and afternoon sessions of volleyball and softball for about forty women and twenty-five men would collapse if the attendants were not continually prodded. As it is, they prefer to sit idly on the sidelines letting the patients putter around, instead of entering in and contributing to the spirit of the games. At least an attempt is being made at this hospital, without the aid of a trained recreational therapist, to enmesh the cog of recreational therapy into the complicated machine of treatment.

The therapeutic use of recreation is also found at Nevada. Here a recreational therapist and her assistant devote their time to approximately forty patients a day. They work only with women patients—some from custodial wards in the mornings, and those from the clinic building in the afternoons. The program includes basketball, volleyball, ping-pong and ballroom dancing in the gymnasium, and walks and softball out of doors. By devoting each session to twenty women, the two therapists attain a high degree of personal contact with every patient. With more trained therapists and assistants this treatment could be extended to include men.

* * * * *

Just as the cowboys set out at a fast gallop across the plains, the screen flashes white, the lights in the auditorium come on, and the assembled patients wait for the next reel to begin on the single projector. In spite of these interruptions, the weekly movie is a popular attraction at the state hospitals. On "movie day" there is an afternoon showing for the ward patients and an evening showing for the working patients. Not all patients are able to attend these movies; the total

number seeing each movie is approximately 750 at Fulton, 500 at St. Joseph, 600 at Nevada, and 650 at Farmington. Since no funds are appropriated for recreation at the state hospitals, all films shown are rented out of the proceeds of the hospital canteen. Movies are not shown at three hospitals during July and August because of the hear in the auditorium. Nevada, however, has an outdoor screen.

Three afternoons a week the recreational therapist loads a sixteen millimeter projector and a portable screen on a cart and wheels it into each ward of the infi mary building at Nevada. Here are housed 520 senile and deteriorated patients who never leave the building. Many are confined to their beds. Seeing a full length picture once a week is the only break in the routine of hospital living for these patients. Although each hospital owns one of these portable projectors, only at Nevada is it used for the benefit of the patients.

* * * * *

The women patients sit on one side; the men on the other. As the music starts, two lines form and march around each side to converge in the middle of the large auditorium. Every Tuesday evening this promenade opens the patients' dance at the Fulton state hospital. After the juke box has played two recordings, the white patients sit down and the colored men and women choose partners. Their dancing possibly a little livelier—lasts for two more recordings and they sit down, and so it goes for an hour and a half of recreation that the patients seem to appreciate greatly. Of course, not everybody can participate. Although the hospital population is 2500, only 300 enjoy this weekly event. About 400 are attracted to the patients' dance at Nevada, the only other hospital offering this form of recreation.

Radios can be found on practically every ward at Nevada and Farmington. However, in some cases the radios seemed to be more for the benefit of the attendants than the patients. It was not unusual to come across wards in which the attendant was listening to the radio in a side room: File the patients sat listlessly in the long narrow dayroom. At Fulton a central public address system broadcasts recordings, radio programs, or special skits to all wards.

The Red Cross Gray Ladies play games such as bingo and word quizzes with some of the patients at St. Joseph. These games offer diversion to the patients, but they are not coordinated with the active treatment program.

The organization of games on hospital wards to relieve the monotony of the day-to-day existence is not known in Missouri state hospitals. Although several were observed playing cards with patients, attendants in Missouri have not grasped the idea that by organizing games on their wards they may contribute to the well-being of their charges. There are checker boards, jigsaw puzzles, books and magazines on most wards, more in some hospitals than in others, but any games played arise more out of the initiative of the patients than that of the attendants. The sight of patients playing checkers or cards was the exception rather than the rule.

OCCUPATIONAL THERAPY

Sitting idly on the hospital ward, Mrs. X incessantly scratched her head. Since this produced sores, her hands had to be restrained. Then one day relatives brought her some quilting material. From that point on she spent her time piecing a quilt. Now she had a better job than scratching her head. Mrs. X is a patient at the Nevada hospital, where the only occupational therapy is the sewing and crocheting done by some of the women patients as they sit on the wards. The materials are supplied by relatives or attendants.

Although it gives patients something to do, this alone is not the aim of occupational therapy. The treatment is directed specifically at improving mental conditions by creating external interests and rebuilding self-confidence. This means occupational therapists and psychiatrists must work together so that the program is patient-centered, not work-centered.

It is a woman's world when it comes to occupational therapy at the two hospitals offering such programs. About twenty women each day tear scraps of cloth and braid rag rugs in the clinic building at Fulton. An equal number of acutely ill women sew decorative patterns on towels and pillow slips at Farmington. In both cases the patients are supervised by a woman untrained in occupational therapy.

* * * * *

Every day the red brick walls grow higher. Soon a roof will cover the new building alongside the psychiatric clinic at Fulton. Within the walls of this occupational therapy building in the not too distant future various groups of patients will gather in the different wings and cubicles. Some will weave baskets, others will make pottery, weave rugs, repair shoes, or work in the carpentry and mattress shops. The building will also house a library for patients. The superintendent plans to hire two occupational therapists and one assistant to put into effect the program this building will make possible. Money has been appropriated for similar occupational therapy buildings at each of the other three hospitals.

INDUSTRIAL THERAPY

"Patient labor is not as good as it used to be," lamented the farm supervisor at one hospital and the chief engineer at another. With the younger patients being sent home in increasing numbers in recent years, those available for hoeing weeds and shoveling coal become older and feebler each year. The use of work arising out of the hospital operation is generally referred to as industrial therapy.

The hospitals exist for the patients, but the patients also exist for the hospitals. In the kitchens they peel potatoes, clean vegetables, and wash dishes, pots and pans. In the dining rooms they serve food, scrub tables and mop floors. On the farm they plant tomatoes, pull radishes and dig potatoes. In the dairy they fill feed bins, clean stalls and milk cows. In the laundry they wash, dry and iron sheets and clothing. In the powerhouse they unload coal cars and haul cinders. In short, there is no task of manual labor too lofty or too low to which the patients are not assigned.

Where does this work cease being therapeutic and become sheer drudgery? It depends on how long the patients stay at it. When, for example, the psychiatrist at the Fulton clinic sends one of his patients to work in the supply room for several weeks to prepare him for a return to his own small store, the work is therapeutic. But when custodial patients at all hospitals are used day after day, year after year, to shovel coal into wheelbarrows, it is charitable to call the work industrial therapy.

Seven days a week, three hundred sixty-five days a year. There are no days off for the kitchen and dining-room crews at the state hospitals. Their reward is a little extra food. In contrast to inmates of the state penitentiary, patients in state hospitals receive no remuneration for their work. With few exceptions, industrial therapy in Missouri state hospitals cannot be considered therapeutic.

TREATMENT OF CUSTODIAL PATIENTS

At Nevada, in a dormitory where patients had been given electric shock therapy, there was one woman who appeared usually alert and well. The doctor explained that she had been on a back ward for a number of years and had recently begun to sink lower and lower into a deep depression. Placed in the clinic building for active treatment, she was responding well to electric shock therapy. She was beginning to take pride in her personal appearance and, for the first time in years, had asked about her husband and children.

Here is the case of a woman on a continued-care ward who had been helped by treatment. How many more are there like her? Why cannot all custodial patients be given similar treatment? The answer is simple. When a doctor is responsible for as many as 600 patients, he has neither the time nor the energy to apply special therapy. Out of the mass of patients requiring his attention, only the exceptionally violent or deeply depressed come into his view. Those who sit peacefully in their rockers will continue to rock.

When a doctor assigned to continued-care wards makes his daily rounds, he asks the attendant in charge of each ward if everything is all right and goes on his way. He could spend all morning in one ward, but he has between ten and twenty others to cover. As a result, only physical ailments get attention.

Questioned as to the number of patients on his wards under treatment for mental illness, one doctor replied that there was none because all were deteriorated to a point where active treatment would be ineffective. Doctors on custodial wards are not alone in this attitude of hopelessness. Some attendants regard their duties as being similar in nature to those of prison guards.

At every hospital a few custodial patients receive active treatment—two here, three there. These are the patients whose mental defections have taken a serious turn for the worse. The treatment of continued-care patients is a very small-scale operation in Missouri.

TREATMENT OF COLORED PATIENTS

The mentally ill Negro admitted to the St. Joseph hospital receives the same treatment given those who have been in the hospital five, ten and twenty years. There are receiving wards for colored men and women at this hospital but they are located in buildings housing custodial colored patients. As of June 1948, the doctor assigned to colored men had a total patient load of 310, white and colored, while the one responsible for colored women cared for a total of 857. Shock therapy and psychotherapy are carried on only in the clinic building, where there are no Negro patients. Nor are these two therapies taken to the colored patients.

The situation is somewhat different at Fulton, the only other hospital admitting colored patients. In spite of heavy patient loads, the two doctors assigned to colored wards at this hospital make an effort to carry electric shock therapy and psychotherapy to Negro patients. Four afternoons a week, electric shock treatments are given on colored receiving wards to about twenty patients. The doctors make every effort to keep in contact with new patients by means of psychotherapy. One of them makes it a point to talk to three patients each day for half an hour a day.

It cannot be said that victims of mental illness obtain equal treatment in each of the four state hospitals. Differences in the kind and amount of therapies applied are apparent. Yet this much is certain: each hospital wants to be the center of an exhaustive active treatment program and hopes for adequate funds and personnel to make such a program effective.

It should be remembered that none of the therapies here discussed is a panacea or universal corrective for the alienated mind. Only the artless would believe in such a miracle; and the psychiatrist is nothing if not a realist. In fact, the word "cure" is almost unknown to his vocabulary. There are so many factors which affect the possibilities of a "permanent cure" that he has become wary of the use of the word. Treatment, important as it is, must be considered as only one of these factors.

The disturbed mind might well respond to hospitalization and treatment and adjust itself through these agencies to normal patterns; and yet this adjustment may be shattered on returning to the same environment which originally caused the disorder. The attitudes of relatives, neighbors and the community generally may undo in a short time what a careful course of therapy has accomplished over a much longer period.

This is not to say, however, that the progress of diagnosis and treatment of mental diseases has not been both notable and real. Many are those who have been restored to useful citizenship through these therapies and the average length of time spent in the hospital is being reduced. These methods of treatment stand as valid testimony to the fact that medical science has entered the lists against the scourage that is mental illness.

III. Auxiliary Factors in Treatment

In the preceding chapter the special therapies designed to improve mental conditions have been discussed. Yet treatment neither begins nor ends with these significant techniques. Hospital functions of every variety are knit together to form a fabric of care and treatment which covers the patient from the day of his arrival until the date of his departure.

RECEPTION OF THE NEW PATIENT

While the new patient waits in the lobby of the administration building, certain routine matters in connection with his admission take place in the adjoining offices. The hospital superintendent examines the admission papers, questions those who accompany the patient and assigns him to a doctor. A stenographer fills in an admission form, setting down pertinent facts about the person and his illness. She examines any clothing that has been brought and certain items such as razors and belts are taken away. When an attendant picks up the bundle of clothing and sets out with the new patient for the clinic building, one phase of the admission procedure has been completed.

The patient undergoes a definite routine on being received in the clinic. In the office of the receiving ward, he comes under the close scrutiny of the attendant in charge, who fills in a form, noting the color of eyes and hair and the location of any scars or marks, and recording height and weight. Next he is bathed, a thorough scrubbing being particularly necessary if he has spent the preceding week in a county jail. He is then put to bed so that the attendant can record at intervals his temperature and pulse for the next twenty-four hours. In a short time his doctor visits him. He prescribes any medication or special handling that may be necessary. New patients often require much time and attention on the part of the hospital staffs in the period immediately after admission, especially if, as often happens, their hospitalization has been postponed until violence or attempted suicide has made it imperative.

The patient is permitted to adjust to his surroundings for three or four days before he is fitted into the active treatment program. During this time he is immunized against smallpox and typhoid fever and is photographed and fingerprinted.

THE EXAMINATION OF THE PATIENT

Twenty-four hours after his arrival, the patient undergoes a complete physical and neurological examination.

Shortly after his admission the patient receives a mental examination consisting of questions which are designed to show how he thinks, feels and behaves, and to bring out the symptoms of his illness, his memory, his general knowledge, and his ability to think. This mental examination affords many opportunities for the doctor to probe the patient's mental processes. Yet when doctors are pressed for time, or when they have no training or interest in psychiatry, these opportunities are passed over, and the examination becomes a barren routine of prescribed questions and recorded answers.

Laboratory tests are a part of the routine examination of all admissions. Each of the four hospitals makes a urinalysis. Three make blood tests for syphilis. At Nevada, however, neither of the laboratory technicians is qualified to make these serological tests.

At Fulton and Nevada, small chest X-rays are made of all new patients to detect tuberculosis. At the other two hospitals the equipment necessary for making these four by five inch plates is not used. At Farmington there is no X-ray technician, and the laboratory technician has time to do only a minimum of X-ray work. St. Joseph, however, employs a full-time X-ray technician.

Because the convulsion produced by electric shock therapy is severe, precautions must be taken to prevent spinal fractures, lung collapse, heart failure and kidney damage. Consequently, patients selected for this treatment receive special examinations. At every hospital except Farmington, a large X-ray plate of the patient's spine is made to reveal any weaknesses that would make the therapy inadvisable. As a further precaution, a full-size chest X-ray is made at Fulton to uncover any lung damage that would preclude the use of shock therapy. The hospitals check for kidney diseases by means of routine urine and blood analyses. If a preliminary examination of the patient's heart indicates possible weakness, an electrocardiogram is made.

The psychometric examination is another technique for ferreting out significant facts about a mentally ill person. The trained psychologist has at his command an array of special tests. Some are designed to bring out personality traits, others to unearth hidden thoughts, and others to disclose intelligence and aptitudes. These tests are valuable because they bring to light facts that expedite the patient's treatment. The information obtained is a material aid to the psychiatrist in forming a complete picture of the case. Although psychometric tests are used in the mental hospitals of many states, they are not administered in Mis-

souri state hospitals. The employment of psychologists to administer these tests is still an unattained objective.

DIAGNOSIS

"And when was the last time President Roosevelt called you on the telephone?", the superintendent asked the patient at the other end of the long table. A staff conference was in progress in the clinic building at Fulton and the assembled doctors were examining a patient in the process of arriving at a diagnosis. This particular patient could talk about her home and children in one breath, and in the next, recite how President Roosevelt consulted her on important matters. As she replied to questions from various sources, the doctors around the table made notations on slips of paper, After the patient left, these notes were given to the doctor presenting the case. In this way each doctor gave his own diagnosis, the one submitted by the majority being final.

Before he is brought into the staff room, the patient is discussed by his doctor, who has made a physical and mental examination and has written a history of the illness. After presenting his findings, the doctor gives his conclusion as to the diagnosis and summons the patient so the others may observe and question him.

Differences were apparent in the conduct of staff conferences at the state hospitals. Farmington was not holding any at the time the visits were made because there were so few doctors. Instead, the superintendent and physician in charge of the clinic building accomplished the same ends by discussing the diagnosis and treatment of specific patients.

The quality of the conferences at the other three hospitals seemed to be in direct proportion to the size of the staffs. At Fulton the conference was attended by the superintendent, seven doctors, a nurse. a chaplain and the woman employed to obtain case histories. The atmosphere throughout indicated a high degree of professional interest. Cases were presented thoroughly and the patients were questioned carefully. The superintendent, five doctors, and a clinical psychologist were present at the St. Joseph staff conference. Cases were reviewed in a cursory manner with little attention to the environmental background of the illness. Some of the doctors seemed more interested in applying a label than in trying to understand why the subject was sick. Since there was little discussion of each patient, quick disposition was made of each case. At Nevada the superintendent, three doctors, and a chaplain were in attendance at the conference. It was easy to obtain the impression that the business at hand was considered only a necessary routine. The prevailing attitude was exhibited by two doctors who loudly discussed the diagnosis with each other while another questioned the patient. An atmosphere of professional concern was not evident. To a layman, at least, the inquiry into the causes and treatment of the illness appears to be more important than the mere labeling of the ailment.

The social history is to a psychiatrist diagnosing a mental illness what an X-ray plate is to a surgeon setting a broken arm. Both provide a clue to the trouble. The record of a patient's life gives the psychiatrist a detailed picture that furnishes him the needed clues to the cause of the mental collapse. A person's family life as a child, his progress in school, his adjustment to social life, to work and to marriage are all significant in a functional illness. Without knowing this environmental background, the psychiatrist is blindfolded in his attempts to resolve an emotional conflict.

There are two ways to obtain this information. One is to have a person trained for the task go to the patient's home and interview his family. Another is to solicit through the mail the answers to a long list of questions. Securing this highly personal information accurately and without offense is a job best performed by one having the necessary training and tact. Since Missouri state hospitals do not employ psychiatric aides who could obtain social histories, they resort to the alternative of mailing out questionnaires. The staff doctors are not satisfied with this procedure for the information obtained is neither complete nor accurate. In making written answers, it is easy to exaggerate some facts and conceal others, something not so likely in a personal interview.

Although all the hospitals use the expedient of the mailed questionnaire, several make rudimentary attempts at obtaining social histories by interviews. When relatives bring patients to the Fulton hospital, they are interviewed by an employee who performs some of the duties of the psychiatric aide, although she lacks formal training. At the other hospitals a stenographer secures a sketchy social history by filling in information on a prescribed form. This is possible only in cases where the patient's family comes to the hospital. Diagnosis and treatment in Missouri state hospitals seem to be seriously handicapped by the lack of personnel needed to obtain these social histories.

THE PATIENT ON THE WARD

At St. Joseph a doctor in the clinic building related that his patients have three common complaints. They do not like the 5:30 rising hour, the strictness of the attendants and the lack of anything to do. These problems are common to new patients at all hospitals. Time hangs especially heavy on their hands. Most of them are not accustomed to sitting idly all day. They may spend several hours three days a week in special therapies, but the remainder of the time they have to themselves. The lack of organized activities seems to be particularly harmful on clinic wards.

A heavier pall of inactivity descends upon patients in custodial wards. Here quiet is the order of the day. Patients remain drooped in their rockers ranged in military lines along the walls. Attendants post themselves as sentinels at a distance. They have absorbed from their fellow-custodians an unwritten law speak to the patient only to give an order. A trip through the many custodial wards in Missouri's state hospitals convinces one that mental disease might well be called the "sitting illness." The rocking chair becomes as clear a symbol of the malady as the white cane is of blindness. It is in that branch of treatment consisting of the day-to-day life on the ward that the hospitals seem to be making their smallest contribution.

* * * *

Two by two, some bent and listless patients from a back ward shuffled down the walk, with an attendant on convoy duty bringing up the rear. Upon arriving at their outdoor sitting spot, they filled the parallel rows of wooden benches. As if watching a show, they all gazed off into space. The attendant, shepherd of his flock, reclined nearby in a lawn chair. What was this but the regimentation of the ward transferred outdoors?

Yet this attempt to alter the daily routine takes place at only one hospital. Fulton custodial patients are taken out of doors once or twice daily in clear weather. Only the few patients with certain privileges were observed on the grounds of other hospitals. An insufficient staff of attendants was cited for this lack of outdoor exercise at St. Joseph and Nevada. A limited number of women patients are taken on walks by two women therapists at the latter hospital. At Farmington certain buildings have fenced-in enclosures. Patients on some wards are free to sun themselves in these yards, but in one building only those on the first floor have this privilege.

The two wards on the first floor of the clinic building at Fulton are open. The locked door, so common in the mental box ital, is absent. Patients are free to come and go as they please. This homelike atmosphere is fitting for patients preparing to return to their homes. Patients are received on the third floor and treated on the second. The normal order of progression is from the top of the building to the bottom; patients are "promoted" from one level to another. The attainment of the open convalescent ward presents a tangible goal. In the other three clinic buildings, all floors are virtually equivalent. There is no prospect of an open ward.

Custodial patients are grouped according to certain classifications. Age is one, behavior and diagnosis are others. When young and old patients are mixed together, the young tend to adopt the deteriorated

patterns of the old. Senile patients are for the most part kept in separate buildings in Missouri hospitals, although crowding does not always make this possible. Noisy, destructive, violent and untidy ones are assigned to wards where they can be given the special care they require.

THE USE OF RESTRAINT

After looking on long rows of chairs filled with motionless patients, a person is likely to believe that inactivity is a characteristic of mental disease. Derangement affects some in another way, however. They become possessed with a compelling drive for action. They pace the floor, shake their hands, or nod their heads continually. The activity of others however, takes a more harmful turn, and must be controlled. One way is to direct the person's energies into more constructive channels by giving him close personal attention. The other method is to restrain him by force. Attendants and therapists lacking, Missouri state hospitals must sometimes resort to restraint to control extraneous activity.

The number restrained is small at each hospital. Those few that present particular problems are controlled by means of leather wrist cuffs or isolation rooms. According to daily ward reports at St. Joseph, five men and twenty-four women were restrained on one day of the visit; at Nevada and figures showed two men and twenty women. The pattern was approximately the same at each hospital. Farmington reduces the need for restraint by placing all agitated patients in one building under the supervision of a registered nurse and by giving electric shock therapy to the most disturbed. At all hospitals restraint is a measure more for custodial than for acute patients. Hydrotherapy replaces restraint in the clinic building at Fulton.

Recognizing that the use of restraint is subject to abuse, the hospitals have made rules requiring attendants to obtain a doctor's authorization for each application. The rule is not strictly enforced. When situations arise calling for action, attendants often apply the cuffs first and notify the doctor later. Doctors must be alert to prevent the misuse of the levice. If the experience of other states is any guide, Missouri will use less restraint as the quantity and quality of attendants improve.

FOOD

Leading sedentary lives, mental patients require less food than others. Without bearing this in mind, the person watching them eat is likely to conclude that many patients leave the table hungry. In addition to bread and a drink, breakfasts contain two servings, dinners four, and suppers three (Schedule I). Portions are larger for the acutely ill than for the chronic, and second helpings are available until the supply is exha sted. Working patients receive supplemental rations at each meal.

Although the quantity of food may be ample, the variety is limited. Balance is not a characteristic of the diets, although some hospitals have made more progress in this direction than others. Potatoes and beans are recurrent items; meats are served at the most once daily, eggs but rarely. Fruits are for the most part dried, and vegetables canned, except in the growing season. Only when hospital gardens are producing lettuce and cabbage are green leaf vegetables plentiful. Small amounts of fats are obtained from milk and oleomargarine, and sugars are supplied in puddings.

An excessive quantity of starch is noticeable on the menus of two hospitals. While potatoes are a daily item at all hospitals, they were served both dinner and supper four days in the week of the visit to St. Joseph. As if potatoes eleven times a week were not enough, the combination of navy beans and boiled potatoes recurred for three of the suppers. Nevada almost matched this record by having ten servings of potatoes during one week, eight in four days.

A daily ration of meat is the rule at three hospitals. Pork from the hospital swine herds is a staple. Less expensive meats such as bologna and frankfurters are comon. Beef in roasts and stews is served at some hospitals. Meat substitutes such as cheese or powdered eggs are on the menu usually once a week.

St. Joseph was not able to meet the ideal of a daily serving of meat or other protein. Fried liver on Sunday was the only meat listed on the menu for all patients in the week of May 2 through May 8. Working patients received scrap bacon, scrambled brains, beef stew, pork hocks, side pork and neck bones at various meals in the same week. Powdered eggs at two other meals gave the general hospital population a total of three protein servings for the week.

Patients receive a cup of milk at least once a day and twice if dairy production permits. Coffee sometimes replaces milk at the noon meal and water is the usual drink at supper, except in clinic buildings where milk is available at every meal.

Problems of planning menus also depend on finance. The amount of funds available largely determines whether the hospital will serve roast beef or bologna, bread pudding or canned peaches. Dietitians planning meals must work within the limits of the hospital budget. Consequently the more expensive proteins give way to the less costly carbohydrates.

At Nevada there was a noticeable discrepancy between the printed menu and the meals actually served. Supplies ordered when the menu was made out were seldom on hand when the meals were due to be prepared. The problem of last minute substitutes was acute.

SCHEDULE I

MENUS AT MISSOURI STATE HOSPITALS

MAY AND JUNE, 1948

	FULTON	St. Joseph	NEVADA	FARMINGTON
Breakfast	Menu for May 6, 1948 Figs Farina Toast Coffee, milk	Menu for May 5, 1948 Stewed prunes Farina Bread Coffee, milk	Menu for May.10, 1948 Stewed prunes Oatmeal Bread, oleo Coffee, milk	Menu for June 10, 1948 Stewed peaches Dry cereal Bread, oleo Coffee, milk
Dinner	Frankfurters Navy beans Breaded tomatoes Fresh apples Bread Milk	Macaroni and tomatoes Green beans Jello Bread Coffee	Meat loaf Buttered potatoes Radishes, green onions Bread, oleo Milk	Fried pork and gravy Boiled potatoes Lettuce with dressing Bread Milk
Supper	Vegetable soup Crackers Creamed peas Canned peaches Bread	Navy beans Boiled potatoes Chocolate pudding Bread	Browned potatoes Gravy Vanilla pudding Bread, oleo	Vegetable soup Crackers Pinto beans Cream pudding Bread

Source: Weekly menu sheets, Missouri state hospitals.

Most of the food is prepared in large central kitchens. These are modern and well-equipped except at Nevada. Here the steam kettles and stoves are old and inefficiently arranged.

At St. Joseph there are three other kitchens in addition to the central one. The value of two of these is subject to question. Both are in outlying buildings, one housing 320 senile women and the other 150 men with ground privileges. It is difficult to understand why food from the central kitchen cannot be transported to these senile women just as it is taken to many other patients in the hospital. Furthermore, there is no apparent reason why men having the freedom of the hospital grounds could not eat in the central dining room. In addition to the increased cost of separate maintenance, it was reported that there is a leakage of supplies from these small kitchens.

Where patients cannot be taken to a central dining room, food must be transported to the wards from the main kitchen. The food is placed in assorted containers and put on carts for long trips through corridors and sometimes across the wind-swept yards. Much of this food arrives at its destination lukewarm at best. The St. Joseph hospital especially is in need of insulated containers.

At three hospitals cafeterias make possible the rapid, efficient service of food. There are two lines, one for men and one for women. As some patients finish, others take their places. As many as nine hundred can be served in one hour.

Instead of a cefeteria, St. Joseph has two small dining rooms, one seating 350 men and another 250 women. In the men's dining room food is served on metal plates half an hour before the patients sit down. The women's dining room is in the basement. The service of food at St. Joseph suffers from the lack of a cafeteria.

The diets at the state hospitals are sufficient to sustain life but they make an insignificant contribution to the improvement of health.

MEDICAL AND SURGICAL CARE

The mentally ill are not immune to physical ailments; they require in addition all of the services of a general hospital. At each institution there is a "hospital unit" where the patients are sent for surgery and the close medical attention called for by communicable diseases. These buildings are modern and well equipped in every case. They contain facilities for major and minor surgery, X-ray photography, dental care and laboratory analyses. When mental patients at Missouri state hospitals develop physical ills they are assured all the benefits of modern medical and surgical treatment.

Because they lead such idle, indoor lives, mental patients are particularly susceptible to tuberculosis. The state hospitals offer their tubercular patients little more than isolation and bed rest. The pneumothorax, a lung-collapsing operation, is performed on a few at St. Joseph by physicians in the city. Vitamin pills and eggnog constitute tubercular therapy at the other hospitals. The services of consulting tuberculosis specialists are needed at each hospital so that patients may profit by lung operations in addition to bed rest.

Only Fulton and Nevada attempt to make annual surveys to uncover tuberculosis as it develops. The X-ray technician at Nevada follows a routine for photographing the chest of all patients and employees every year. At Fulton, X-ray examinations of long-term patients are made in what little extra time is available for the laboratory technician who must perform X-ray work.

Proper dental care is lacking in the state hospitals; all have modern equipment but none employs full-time dentists. Only emergency extractions and fillings can be handled on a part-time basis.

Two hospitals have active physiotherapy departments. At Nevada and Farmington infra-red and ultra-violet lamps, and diathermy are used to treat external and internal bodily disorders.

Special diets, so necessary to diabetics, are planned at Fulton and St. Joseph by qualified dietitians. The other hospitals serve only such special diets as can be made by untrained personnel.

By studying the dead it is possible to learn about the living. Autopsies are performed on a certain number of patients dying in the state hospitals. The lack of consulting pathologists forces staff doctors to make these post-mortem examinations at Nevada and Farmington consequently, there are less autopsies at these hospitals than at Fulton and St. Joseph. One difficulty standing in the way of an increased number of autopsies is the priority the State Anatomical Board exercises on unclaimed bodies. The board's efforts to provide bodies for medical students hinders the hospital's attempts to study the cause of death of its own patients.

MISCELLANEOUS ADJUNCTS OF TREATMENT

Now and then a patient on a custodial ward will attract attention by refusing to eat, by escaping or by attempting suicide. The doctor assigned to the ward will then look into the patient's record to familiarize himself with the case. In a brown manila folder he will find all of the accumulated information about the patient—the manner of his admission, the results of his examinations, the summary of his staff conferences, his social history, his course of treatment and the record of his progress through the hospital. In this way a doctor can obtain a more or less complete picture of a patient's illness.

Patient records at the four hospitals follow the same general pattern. In some, case histories were more detailed than others. Where some records seemed to be loose collections of assorted information, others were thorough and well-integrated. Those at Nevada were superior in this respect. At all hospitals the records could be of a higher caliber if physicians were not responsible for so many patients. Under the present conditions, they fill in the required information in skeleton form and hasten on to other duties.

The progress report, probably the most important part of the patient records, is being neglected at all hospitals. It is possible for some residents of custodial wards to become "lost men." A routine function of a mental hospital is the annual examination of every patient. Each year physical and mental conditions should be briefly noted on progress reports. Patient records show that this is not being done in Missouri. In many cases there is no entry on a patient's progress record since he was first assigned to his present ward. When populations are heavy and staffs are short, this periodic review of all residents is one of the first functions to be cut.

It is not unusual for mental illnesses to be improved by the sheer weight of time. Quite often patients on continued-care wards lose their erroneous beliefs after a period of years, but continue to sit through force of habit. A doctor can discover an improved mental state in a short interview. Since the state hospitals do not bring to light these improvements by routine examinations, it can be assumed that the State of Missouri is paying for the custody of a number who are fit for supervision in their own homes. There is little doubt that staffs large enough to enable the careful checking of long-term patients would permit some to be released from hospital rolls.

In addition to bringing skewed minds into contact with every day realities, books and magazines provide avenues of escape from the dreary life of the hospital. A well-stocked library, staffed by a full-time librarian was found at St. Joseph. The libraries at Fulton and Nevada are smaller and open only at certain times, two afternoons a week at the latter hospital. Farmington has no central library but on every ward there are small racks containing books and magazines.

Mental disease captures a person's capacity for interest and centers it upon himself. Because religion teaches the existence of a scheme larger than individual minds, it is a valuable ally in the campaign aimed at breaking down the fortress of self-interest. Many mental patients have been aided by the power of religious faith. It is therefore not unusual to find that both Catholic and Protestant church services are

routine at each hospital. Attendance, however, is small; two or three hundred is the maximum at any one service. Farmington particularly emphasizes religion in the treatment of mental illness. The inspiration of hope through faith enjoys a significant position in this hospital's program.

From diagnosis to religion, from diet to records, there is hardly a hospital activity that cannot be called a therapy. As these auxiliary functions are strong or weak, treatment is good or bad. The weaknesses found in Missouri hospitals can almost universally be laid to staff shortages. It follows that larger personnel complements would permit material improvement in the caliber of treatment.

IV. Personnel

The newer ideas which have supplanted the traditional notion of a hospital staffed only for confinement and protective custody has made the kind and quality of hospital personnel one of the most significant factors in the successful care and treatment of the psychotic.

It is, of course, essential to have an adequate physical plant for the comfort of the patients, but unless that plant is manned with enough persons who have the proper skills and attitudes, the vital functions of treatment cannot be carried on with maximum effectiveness. It is our purpose here to describe the functions of staff members essential to a well-operated hospital and to discuss in some detail the situation as it exists in Missouri institutions.

The personnel of a mental hospital can roughly be divided into two classes. In the first group are those who work directly with the patients or assist in this work. In the second group are those who render auxiliary service, such as farm management, plant maintenance and clerical and office work. We are here concerned primarily with the first group but it should be emphasized that the goal of all personnel ought to be the welfare of the patients.

THE SUPERINTENDENT

The superintendent is the administrative head of the mental hospital. He must not only be a trained psychiatrist but should also be a capable administrator. All hospital activities come under his supervision. He must plan and coordinate these activities and secure the cooperation of employees. He has the responsibility of securing the teamwork that is so necessary to the efficient and successful operation of a hospital.

Until recently the superintendent and business manager in Missouri were of equal authority and both subject to removal with a change in political administration at the state level. Now both officers are under the state merit system and the business manager is subordinate to the superintendent in matters of hospital policy.

It should be remarked here that Missouri has only six qualified psychiatrists in its mental hospitals, and of these, four are serving as superintendents. In two of the hospitals the superintendent is the only qualified psychiatrist on the staff, which means that he has added to his administrative duties, the responsibility for treating patients.

THE PHYSICIAN

As defined by the State Personnel Advisory Board, physicians in Missouri state hospitals fall into one of four classifications. These are: general physician; psychiatrist I, psychiatrist II; and psychiatrist III (Table 4).

TABLE 4
PERSONNEL ADVISORY BOARD CLASSIFICATION OF PHYSICIANS

MISSOURI STATE HOSPITALS JUNE, 1948

Classification	Number
Superintendent	. 4
Psychiatrist III	
Psychiatrist II	. 2
Psychiatrist I	. 10
General Physician	
Total	. 21

Source: Compiled by the staff of the Committee on Legislative Research.

All these classifications require graduation from an accredited medical school and a license to practice medicine in Missouri. The basis for the various classifications is in the amount of training and experience the doctor has had in the treatment of mental diseases.

The general physician may be concerned only with the physical illnesses of his patients or he may be a young physician who is also learning something of the treatment of mental illness under the direction of the superintendent. Of the three general physicians in the Missouri hospitals, two are in this latter category.

Two years experience in the practice of medicine is required of a Psychiatrist I, one of which must have been in the field of psychiatry. Ten of the doctors in the Missouri Hospitals are in this group.

To qualify as a Psychiatrist II the doctor must have practiced medicine for four years, two of which have been in the field of psychiatry. There are only two physicians in the Missouri hospitals, classified as Psychiatrist II.

The highest medical classification is that of Psychiatrist III. To attain this rating a physician must have spent five years in the practice of medicine, three of which were in psychiatry with at least one year's experience in a supervisory capacity. In addition one year of advanced training in psychiatry beyond graduation from a medical school is

required. Presumably it is persons in this classification who may be termed "qualified psychiatrists." Exclusive of the four superintendents, there are only two physicians in the Missouri hospitals who hold this classification under the merit system.

Of the seventeen physicians in the Missouri hospitals, twelve are aged sixty or over (Table 5).

TABLE 5

DISTRIBUTION OF PHYSICIANS BY AGE GROUPS

MISSOURI STATE HOSPITALS

JUNE, 1948

age group	Numbe
5–29	. 2
0-34	
5–39	
0-44	. 1
5–49	2
0-54	
5–59	
0-64	A
5–69	. 4
0–74	. 1
5–79	. 3
	-
Total	17

Source: Compiled by the staff of the Committee on Legislative Research.

THE PSYCHIATRIC NURSE

The first assistant to the physician in any hospital is the nurse. This is especially true of the mental hospital. In addition to the usual duties of a nurse, the psychiatric nurse is the intermediary between the psychiatrist and the attendant. Because of special training in the care of the mentally ill, a skillful psychiatric nurse may often change the atmosphere of a ward from custodial to therapeutic.

THE CLINICAL PSYCHOLOGIST

As a preliminary to the treatment for mental illness it is almost imperative for the psychiatrist to know the native intelligence, aptitudes, and skills of the patient and the extent to which he has deteriorated. Here the clinical psychologist enters the picture. This psychologist is trained in the use of psychotherapy and other non-medical treatments. At the St. Joseph hospital this staff member assists a physician in his treatment of newly admitted patients. At the other three hospitals,

however, there are no psychologists and treatment is given without this assistance. The superintendents were unanimous in expressing the need for this type of professional help.

THE PSYCHIATRIC AIDE

When a patient enters the hospital for the first time, too often little or no information relating to his background and the nature and duration of his illness is available. In most hospitals it is the first duty of the psychiatric aide to secure from relatives this social history. Later it is expanded and verified by further contacts in the community.

In states having a preventive program the psychiatric aide assists in making community contacts and keeping the necessary records on persons coming to the clinic.

The third, and probably the most important, function of this trained worker is the preparation of the home and community for the paroled patient. Often the patient on being paroled or discharged returns to an environment that makes his adjustment difficult and, sometimes, even impossible. Close contact and supervision by the psychiatric aide frequently obviates the necessity of returning the paroled patient to the hospital for care and treatment.

In the four Missouri hospitals there is but one psychiatric aide, who alone can do little except secure a brief history from relatives or others who have the patient in custody on admittance to the hospital.

THE THERAPISTS

There are four types of therapists that are usually included in the complement of a well-staffed mental hospital. These are: (1) the hydrotherapist who makes use of the wet pack and flow tub to soothe and quiet disturbed patients, (2) the physiotherapist who accomplishes the same end by the use of massage and heat lamps, (3) the recreational therapist, and (4) the occupational therapist.

It appears that the Missouri hospitals are understaffed in this area as well as in most others. The present minimum need as seen by the superintendents is for four additional hydrotherapists, eight occupational therapists, three physiotherapists and five recreational therapists.

THE RADIOLOGIST

The radiologist is a specialist in the interpretation of X-ray photographs as well as in the application of deep X-ray therapy in the treatment of cancer. None of the hospitals has a full-time radiologist, but all except Farmington employ radiologists on a part-time basis.

Fulton and St. Joseph have deep X-ray therapy equipment, the use of which is limited by lack of full-time personnel.

THE DENTIST

Dental care in a mental hospital is a very necessary adjunct to treatment of mental illness. Ulcerated and decayed teeth are not conducive either to comfort or health and may be contributing factors in mental diseases. At present in the Missouri hospitals much of the excellent and expensive dental equipment is not being used. There is no dentist on the staff at Fulton. The other hospitals have part-time dentists. At each hospital the need was expressed by the superintendent for one full-time dentist with an assistant.

THE TECHNICIANS

The laboratory technician and the X-ray technician are both invaluable to the physician in diagnosis. Through laboratory tests a complete physical examination can be made and the organic basis for some mental diseases can be determined. The X-ray technician under the direction of the physician can X-ray and photograph various parts of the body and thus discover fractures, malformations, or the presence of an infectious disease such as tuberculosis.

The Missouri hospitals at present employ six full-time and one halftime laboratory technician and two X-ray technicians.

At Fulton one trained laboratory technician with an assistant is doing both the laboratory and X-ray work. Farmington also has a laboratory technician who does the X-ray technician work. The remaining two hospitals each have one X-ray technician. At St. Joseph one full-time laboratory technician and one half-time assistant is employed. Two laboratory technicians are employed at Nevada and one at Farmington. However, the two laboratory technicians at Nevada are not registered. To carry on this work effectively the superintendents felt that two laboratory technicians and one X-ray technician were needed in each hospital.

THE FOOD SERVICE MANAGER

The food service manager or dietitian plans hospital menus and supervises their preparation. Special diets for the tubercular, the diabetic and the physically ill are also planned by the dietitian. Two of the hospitals have trained dietitians. One has a former chief cook serving as dietitian, and the other a person whose training is in another field.

THE CHAPLAIN

Nowhere is it more evident than in a mental hospital that "man shall not live by bread alone." Here, too, the things of the spirit are important. Most mental hospitals have both a Protestant and Catholic chaplain as full-time staff members.

Besides giving spiritual guidance, which in itself has a therapeutic value, the chaplain visits the wards, discusses personal problems, writes letters to relatives and renders other services which mean much to those who come under his care.

Each of the Missouri hospitals has two full-time chaplains, with the exception of Nevada, where the service of a full-time Protestant chaplain is not available.

SUPPLEMENTARY SERVICES

Supplementary but none the less important services are rendered by the music director, the librarian, the beautician and the barber.

In the Missouri hospitals there are no music directors presently employed. Libraries seem not to be utilized to the extent that they might be. Without too much difficulty books could be taken to the wards and interest in this activity developed, but in the Missouri hospitals the library is used only by a few patients on the open wards.

THE ATTENDANT

The incompetent attendant is a continual source of harassment to administrators and to psychiatrists alike. They are the brier and the bramble in the hospital field that no one seems as yet to have been able to clear away for more productive results.

These men and women are with the patient every hour of the day. They may display deep interest, understanding and sympathy not only toward those in their care, but also toward the work of the psychiatrist and what he is trying to accomplish; or they may show utter indifference and apathy toward both. Too often this latter attitude prevails.

The attendant problem in Missouri state hospitals may be summarized in one sentence; there is an inadequate supply both in the quantity and quality of this type of personnel.

Since the attendant-patient ratio is discussed in another section of this chapter, we are here concerned chiefly with quality.

The brutality of an attendant toward a patient makes headlines. Hence, when these occasions arise they, more often than not, come to public attention. For this reason, one is led to believe that this is a major attendant problem. As a matter of fact, the very rarity of such occurrence is what makes them newsworthy and they do not constitute a serious problem. It is the indifference, the "prison guard" attitude, the unkind word, and the lack of knowledge of the first principles of psychiatry that destroy the maximum efficiency of the hospital.

Moreover, out of 787 attendants employed in Missouri state hospitals in May 1948, 41 per cent were over 60 years of age, 26 per cent were over 65, and 12 per cent were over 70. Five attendants who were on the payroll at that time were over 80 years of age. Many of these seem so physically handicapped that it is unlikely that they could meet an emergency on their wards-were one to arise.

The situation thus produced is significant in that it not only affects the comfort and contentment of the patient, but also in many instances it nullifies the results of treatment and imperils the chances of recovery.

The forces which produce this situation are not easily mitigated. The popular opinion prevails that this condition is brought about solely because of the low salaries paid to attendants. That this is a factor is not to be denied; but it is only being realistic when one adds that to most persons the job itself is unattractive, and that heretofore there has been neither job security nor incentive for advancement.

A merit system for these state employees became effective July 1, 1948. It is too early to judge the effect which this system will have on this particular personnel problem. At this writing no examinations have been given for attendants, and all are on a temporary or provisional basis. New salary scales have been established and the working day for attendants has been shortened from twelve to eight hours. This latter is in a sense equivalent to a rise in salary. In addition two weeks vacation and fifteen days sick leave with pay are allowed each year. Under this plan there should also be a sense of security in one's job, and, if done well, an opportunity for advancement in compensation, not only because of length of employment, but also because one may move from a lower to a higher attendant classification.

Prior to the inception of the merit system, the standard working wage for an attendant working a twelve hour day was \$75 plus maintenance. Under this new plan, salary ranges for Attendant I in rural areas are from \$115 to \$147 per month for an eight hour day (Table 6). From this amount is deducted maintenance which may vary in individual cases. An Attendant I entitled to \$115 per month, who is furnished a single room and three meals a day, would have \$34 deducted from this amount, and he would receive \$81 in cash. The detailed maintenance schedule, as issued by the Personal Advisory Board, is shown in Schedule II.

TABLE 6

WAGE SCALES FOR ATTENDANTS

MISSOURI STATE HOSPITALS JULY, 1948

Classification	Beginning		Salaries by	e length of	service	
Classincation	salary	6 mos.	12 mos.	18 mos.	24 mos.	30 mos.
Attendant I	\$115*	\$121	\$127	\$133	\$140	\$147
Attendant I	127†	133	140	147	154	162
Attendant II	147‡	154	162	170	178	187
Attendant III	162‡	170	178	187	196	206
Attendant IV	206‡	216	227	238	250	262

^{*}Rural wage scale.

Source: Missouri State Personnel Division, Pay Plan, July 1, 1948.

Since the state has taken over the St. Louis City Sanitarium and the St. Louis Training School, the Personnel Advisory Board has established an urban pay scale for Attendant I which is applicable in St. Louis and St. Joseph only. Whereas a rural scale ranges from \$115 to \$147 a month, the urban scale is \$127 to \$162. For full maintenance for one person, \$45 is deducted from the urban scale.

It has been suggested that more competent and better qualified attendants could be obtained if funds and personnel were available to establish training programs for attendants similar to, but of course less intensive than, nurses' training programs.

Whatever the solution may be, it is necessarily true that the better the attendant the more efficient is the hospital and the more productive the results of treatment.

SCHEDULE II

STATE OF MISSOURI PERSONNEL DIVISION

MAINTENANCE CHARGE SCHEDULE

I. Living Quarters Rates

A. Basic Room Rates

\$14.00

The basic room rates used in the final determination of the value of a living unit which is heated, furnished and lighted, are as follows:

Basic	MONTHL	Y ROOM RATES	
	Persons i	n Room	
	2	3	4
\$1	2.00	\$10.00	88 (

[†]Urban wage scale.

tRural and urban scales.

Schedule II—(Continued)

B. Multi-room Units

The rates for suites, apartments and houses are built up as follows:

First room. 100% of basic one-room rate. Second room, add. 75% of basic one-room rate. Third to tenth rooms, inclusive. 50% per room.

KITCHEN · Compute as 100% of the basic room rate and count the kitchen as the second room.

BATHROOM—Compute only for one bathroom and at 50% of the basic first room rate. Do not count as a room.

This schedule is exemplified as follows:

SUITES (No Kitchens)	APARTMENTS OR HOUSES
First room100%	First room100%
Second room	Kitchen100%
Third and over 50% on.	Third and over 50% on.
Bathroom 50%	Bathroom 50%

C. Rental Responsibility

No reduction in rent shall be allowed for any absence. If the resident officer or employee is off the payroll, he shall continue, nevertheless, to be responsible for the rental charge, unless he officially gives up his assigned quarters and vacates the premises of all his personal property.

II. Food Rates

A. · Meals

Allowance has been made for more than a normal number of absences from meals. The monthly rates are as follows:

MONTHLY MEAL RATES

ONE MEAL	Two Meals	THREE MEALS
\$7.50	\$15.00	\$20.00

B. Food from Stores

1. Food from Stores Credit-Account:

An employee entitled by his position to family maintenance, resident in living quarters with housekeeping facilities and desirous of the privilege of withdrawing food from stores for his family use, shall establish his personal food from stores credit-account for all members of the family, according to the following schedules:

FOOD FROM STORES SCHEDULE

Adults\$15.00	per month
Children 7.50	per month
(Under 6 years)	

Note: The following rule of the Personnel Advisory Board will govern so far as subsistence allowances are concerned:

Rule 6.5 (c) Subsistence Allowances. Subsistence or maintenance allowances received in lieu of cash shall be considered as part of total salary. Whenever subsistence is allowed in lieu of cash, a schedule of such charges together with a statement of the policy and rule to be followed in making the changes shall be submitted by the appointing authority to the Director of the Personnel Division, for the approval of the Personnel Advisory Board.

STAFF-PATIENT RATIO IN MISSOURI STATE HOSPITALS

The adequacy of hospital personnel in terms of numbers may be measured by the ratio of patients, doctors, nurses and other staff members to the total patient population. The American Psychiatric Association has established standards of adequacy, and while so far as is known, these standards are not approached unless it is in private mental hospitals, they serve as an indication of how far Missouri deviates from the ideal.

Visits to the four state mental hospitals in Missouri have verified the contention that the problem of staff vacancies is most pressing. At each hospital the superintendent points out that important programs are being neglected, or omitted altogether, because of the shortage of doctors, nurses, attendants or other personnel who work directly with the patients.

In order to obtain some estimate of the minimum needs of the state hospitals, each superintendent was asked to indicate the minimum number needed to carry out a program of reasonable efficiency (Table 7).

TABLE 7
ACTUAL STAFF AND MINIMUM REQUIREMENTS
MISSOURI STATE HOSPITALS
JUNE, 1948

Position	Actual staff	Minimum requirements*
Superintendent	4	4
Psychiatrist	14:	. 36
General physician	3	6
Registered nurse	15	41
Attendant	976	1194
Psychologist	1	4
Psychiatric aide	1.	10
Recreational therapist	1	6
Occupational therapist	. 0	8
Hydrotherapist	7	. 11
Physiotherapist	1	4
Radiologist	3†	4
Pathologist	2†	. 4
Dentist	3†	4
Dietitian	2	4
Laboratory technician	7‡	8
X-ray technician	2	4
Chaplain	7	8
Pharmacist	4	4
Librarian	2	4
Barber	10	10
Beautician	5	6

^{*}Required minimum staff indicated by the four hospital superintendents.

Source: Compiled by the staff of the Committee on Legislative Research,

[†]Part time.

One part time.

The most serious shortage of the Missouri hospitals is found in physicians, nurses and attendants. It is obviously impossible to carry on an adequate active treatment program when each doctor must treat an average of 528 patients (Table 8). This fact becomes more striking when a comparison is made with the standards advocated by the American Psychiatric Association. These standards call for one physician for each 75 patients under active treatment and one physician for each 200 patients under custodial care. This, of course, is the ideal and difficult of attainment. However, it does provide a measure indicative of the needs of the Missouri hospitals. To say that each physician has an average load of 528 patients does not clearly reveal the problem. Actually, in one of the Missouri hospitals a total of 1324 patients is assigned to one physician (Table 9).

TABLE 8
STAFF-PATIENT RATIOS
MISSOURI STATE HOSPITALS
JUNE, 1948

	Average patients for each				
	Average daily population	Physician	Nurse	Day attendant	Night attendant
Fulton	2564	366	1282	22	31
St. Joseph	2484	497	497	32	44
Nevada	2068	689	689	24	47
Farmington	1857	929	371	25	50
				_	-
All hospitals	8973	528	598	25	41

Source: Compiled by the staff of the Committee on Legislative Research.

TABLE 9

PATIENTS ASSIGNED TO EACH DOCTOR

MISSOURI STATE HOSPITALS

JUNE, 1948

FULTON		St. Jeseph		
Doctor .	Patients	Doctor	Patients	
A	. 611	Н	. 857	
B	. 514	I	. 586	
C	. 371	J	. 584	
D	. 364	K	. 310	
E	. 272	L		
F	. 251			
G	. 114			
Nevada		FARMINGTON		
M	. 807	P	. 1324	
N	. 726	Q	. 541	
0	. 517			

Source: Compiled by the staff of the Committee on Legislative Research.

The situation in regard to nurses is even more serious. The average nurse-patient ratio is one to six hundred. At one Missouri hospital the average is 1282 patients for each nurse. It is impossible to give nursing care to any except those in the acute hospital and in the clinic buildings and even for these few the nursing staff is inadequate. It is an understatement to say that this situation is critical, for the ideal standard is one nurse for each 25 patients in active treatment and for each 40 patients in custodial care.

In the four Missouri hospitals, the average attendant-patient ratio is one to 25 during the day and one to 41 at night. Of a total of 224 wards, 110 or almost half are staffed by only one attendant during the day (Table 10). This number of patients per attendant is so great that it prevents desirable ward activities.

An adequate complement of trained personnel in Missouri state hospitals would contribute much to the effort to control and alleviate mental illness in the state.

WARDS STAFFED BY ONE ATTENDANT ON THE DAY SHIFT AND AVERAGE NUMBER OF PATIENTS PER WARD

MISSOURI STATE HOSPITALS JUNE, 1948

	Total wards	Wards with one attendant	or passesses
Fulton	65	29	35
St. Joseph	71	56	37
Nevada	46	14	50
Farmington	41	11	38
All hospitals	223	110	38

Source: Compiled by the staff of the Committee on Legislative Research.

V. Admissions and Discharges at Missouri Hospitals

While the primary function of a state hospital is rehabilitation by means of special therapies and auxiliary activities, it also harbors a large number of wrecked and shattered minds unresponsive to treatment. Since the care of these patients over a long period of time costs the state more than the active treatment program, it is important, even from an economic standpoint, that the hospitals do not add to their custodial accumulations.

Prior to 1942, more patients were admitted to the state hospitals each year than were separated (Table 11). This resulted in a gradual expansion of populations (Table 2). Since that year, however, separations have for the most part exceeded admissions, and populations have stopped rising.

TABLE 11
ADMISSIONS, SEPARATIONS AND ACCUMULATION OF PATIENTS
MISSOURI STATE HOSPITALS
1935 TO 1947

Year	Total admissions	Total separations	Excess of admissions over separations
1947	1852	1881	- 29
1946	1761	1776	- 15
1945	1990	1756	234
1944	1921	1952	- 31
1943	1890	1970	- 80
1942	1827	2149	- 322
1941	2415	2281	134
1940		2394	439
1939	2462	2077	385
1938	2475	2172	303
1937		1995	271
1936		1974	408
1935		1639	445

Source: Biennial Reports of the Board of Managers of the State Eleemosynary Institutions, 1935 to 1944; First Biennial Report of the Division of Mental Diseases, 1945-1946; compiled by the staff of the Committee on Legislative Research.

Admissions have decreased, however. From a peak of 2833 in 1940, they have fallen off to 1852 in 1947 (Table 11). This fact cannot be taken as a decline in mental illness because admissions throughout the country have steadily risen. Between 1935 and 1945 the number of

MEDICAL LIBRARY

patients admitted for the first time to all mental hospitals in the United States increased by 40,000 (Table 1). Yet Missouri admitted less in 1945 than in 1935. A possible answer is that Missouri state hospitals have been refusing to treat the number they did in former years.

Separations from a state hospital are composed mainly of two large groups: patients who are "discharged" after responding to treatment and those who die. A discharge removes a patient's name from the hospital rolls; yet for one year prior to this bookkeeping event he has been absent from the hospital in his own home on a trial visit called a "parole." During this parole period he is still a patient and can return to the hospital without a formal admission.

While the numbers of patients discharged has decreased since the peak year of 1940, the number of deaths has risen (Table 12). The latter fact can be accounted for by the swelling influx of the aged to the hospitals, but the diminishing discharges are less easily explained. There seems to be, however, a correlation between the number of physicians employed and the number of patients admitted and discharged. In 1939 and 1940 there were 30 and 29 doctors respectively employed and largest the number of patients, 1591, was discharged in the latter year (Table 13). As the staffs declined, the trend in discharges was downward. It is not difficult to understand that in earlier years the hospitals were able to render a greater service because they had larger staffs. Admissions as well as discharges have been roughly proportional to the number of physicians employed.

TABLE 12
DISCHARGES AND DEATHS
MISSOURI STATE HOSPITALS
1935 TO 1947

Year	Discharges	Deaths
1947		846
1946	964	808
1945	971	777
1944	1140	803
1943	1158	804
1942	1457	681
1941		773
1940	1591	797
1939	: 1310	743
1938	1462	699
1937	1207	779
1936		924
1935	1003	614

Source: Biennial Reports of the Board of Managers of the State Eleemosynary Institutions, 1935 to 1944; First Biennial Report of the Division of Mental Diseases, 1945-1946; compiled by the staff of the Committee on Legislative Research.

TABLE 13

ADMISSIONS, DISCHARGES AND PHYSICIANS EMPLOYED

MISSOURI STATE HOSPITALS

1935 TO 1947

Year	Admissions	Discharges	Physicians employed
1947	1852	1032	16
1946	1761	964	19
1945	1990	971	16
1944	1921	1140	19
1943	1890	1158	19
1942	1827	1457	24
1941	2415	1449	21
1940	2833	-1591	29
1939	2462	1310	30
1938	2475	1462	27
937	2266	1207	25
936	2382	1031	18
1935	2084	1003	18

Source: Biennial Reports of the Board of Managers of the State Eleemosynary Institutions, 1935 to 1944; First Biennial Report of the Division of Mental Diseases, 1945-1946; compiled by the staff of the Committee on Legislative Research.

Although the total for all hospitals incidates a net loss of population in 1947, admissions exceeded separations at Fulton and Farmington (Table 14). St. Joseph and Nevada appeared to reduce their populations more by reason of low admissions than by high separations. Differences in the types of separations at each hospital are noticeable. At Farmington discharges far outnumbered deaths; at Fulton they were about equal, and at the other two hospitals deaths surpassed discharges (Table 15).

TABLE 14
ADMISSIONS AND SEPARATIONS
MISSOURI STATE HOSPITALS, 1947

	Total admissions	Total separations	Excess of admissions over separations
Fulton	560	535	25
St. Joseph	384	433	- 49
Nevada	343	353	- 10
Farmington	565	560	- 5
All hospitals	1852	1881	- 29

Source: Compiled by the staff of the Committee on Legislative Research.

TABLE 15

DISCHARGES AND DEATHS
MISSOURI STATE HOSPITALS, 1947

	Discharges	
Fulton	269	266
St. Jose h	167	266
Nevada	163	188
Farmington	433	126
All hospitals	1032	846

Source: Compiled by the staff of the Committee on Legislative Research.

Another fundamental difference exists among the four hospitals. The discharge rate, the measure of releases in relation to admissions, varies widely. It is not possible to arrive at a valid measure by comparing apples with peanuts. Yet state hospitals do just that when they establish discharge rates. They compare one lot of 75 patients discharged with another group of 100 admitted in the same year and come up with a rate of 75 per cent. Since most patients are not discharged until one year after they leave the hospital, two separate and distinct groups of patients are being compared. The figure 75 per cent therefore does not mean, as many believe, that three-fourths of the annual admissions are discharged, but rather that discharges stand in a ratio to admissions of 75 to 100. This ratio for all the hospitals was 56 in 1947; at Farmington it was 77 and at St. Joseph 44 (Table 16).

TABLE 16

RATIO OF PATIENTS DISCHARGED TO TOTAL ADMITTED

MISSOURI STATE HOSPITALS, 1947

	Patients discharged	Patients admitted	Discharges for each 100 admissions
Fulton	269	560	48.0
St. Joseph	167	384	43.5
Nevada		343	47.5
Farmington	433	565	76.6
All hospitals	1032	1852	55.7

Source: Compiled by the staff of the Committee on Legislative Research.

There are no statistics published by the state hospitals that will permit the calculation of a true discharge rate, one that shows what proportion of a given group of patients is discharged after a certain time. For the purposes of this study, such a rate was established for a sample of 433 patients. The records of all those admitted for the first time in April, May and June 1945 were examined in June 1948 to determine the disposition of these patients at that time, approximately three years later. It was found that 40 per cent had been discharged, 28 per cent were still in the hospital, another 28 per cent had died and 4 per cent were at home on trial visits or parole (Table 17). Those discharged at each hospital ranged between the extremes of 60 per cent at Farmington and 30 per cent at Nevada.

From these cold statistics one might conclude that one hospital is doing a far better job of rehabilitation than the others. Indeed, in 1947, Farmington admitted more, paroled more and discharged more patients than any other hospital. And yet it has the smallest number of patients.

In order to understand these differences, it is necessary to examine two factors: the size of medical staffs, and the type and age of patients admitted.

In 1947 Fulton, with 6 doctors, had the largest staff. There were 420 patients per physician. Farmington, with 3 doctors, had a ratio of 602, St. Joseph with 4, a ratio of 620, and Nevada with 3; the highest or 700 patients per physician. The large staff loads can be seen as contributing to the low number of discharges at St. Joseph and Nevada. The larger staff at Fulton produced the second highest number of releases; still Farmington with a smaller staff-discharged the most. Other factors must be considered.

It is interesting to notice that in 1947 the admissions to Farmington differed markedly from those to the other three hospitals. Only 13 per cent of the first admissions to Farmington were 65 years of age or over while 39 and 34 per cent were in this category at the others (Table 18). An analysis of the sample of 433 patients admitted in three months of 1945 brings to light that discharge rates vary according to the type of disease. Only 12 per cent of the patients having senile psychosis were discharged after three years (Table 19). Of those with dementia praecox, 55 per cent were discharged, and of the manic depressives, 88 per cent. In 1947 Farmington admitted a lower proportion of senile psychotics than any other hospital, 5 per cent as against 18 to 25 per cent (Table 20). Farmington admitted a greater proportion of patients with dementia praecox and manic depressive psychosis than any other hospital. It would appear from a statistical point of view that this hospital tends to favor younger patients with better chances

of recovery and to slight those in the old age group. If these statistics point to a policy of selective admissions, then the low number of deaths as well as the high discharges at Farmington would be more easily understood.

TABLE 17

DISPOSITION OF 433 PATIENTS ADMITTED FOR THE FIRST TIME IN APRIL, MAY AND JUNE, 1945

MISSOURI STATE HOSPITALS JUNE, 1948

	DISPOSITION AS PER CENT OF ADMISSIONS					
	Discharged	In hospital	On parole	Deceased	Total	
Fulton	32.0	28.1	2.0	37.9	100.0	
St. Joseph	36.8	33.3	1.7	28.2	100.0	
Nevada	29.5	32.6	6.3	31.6	100.0	
Farmington	60.2	17.8	5.1	16.9	100.0	
All hospitals	40.4	27.7	3.7	28.2	100.0	

Source: Compiled by the staff of the Committee on Legislative Research.

TABLE 18

DISTRIBUTION OF FIRST ADMISSIONS BY AGE GROUPS

MISSOURI STATE HOSPITALS, 1947

	PER CENT OF TOTAL FIRST ADMISSIONS					
Age group	Fulton	St. Joseph	Nevada	Farmington		
0-34	18.1	18.7	21.2	31.0		
35–64	43.3	42 5	45.2	56.2		
65 and over	38.6	38.8	33.6	12.8		
Total	100.0	100.0	100.0	100.0		

Source: Compiled by the staff of the Committee on Legislative Research.

TABLE 19

DISCHARGES AS PER CENT OF ADMISSIONS BY TYPE OF MENTAL DISEASE

433 FIRST ADMISSIONS IN APRIL, MAY AND JUNE, 1945 MISSOURI STATE HOSPITALS IUNE. 1948

Type of mental			PER CENT		
disease	Fulton	St. Joseph	Nevada	Farmington	Total
Neurosyphilis		20	44	63	29
Senile psychosis	13	19	5		12
Cerebral arteriosclerosis.	17	21	9	39	24
Dementia praecox	62	41	40	67	55
Manic depressive	-	88	100	85	88
Other psychosis	- 31	48	35	57	43
Without psychosis	58	67	38	82	62
				_	
Total	32	37	30	60	40

Source: Compiled by the staff of the Committee on Legislative Research:

TABLE 20
DISTRIBUTION OF FIRST ADMISSIONS BY TYPE OF MENTAL DISEASE

MISSOURI STATE HOSPITALS, 1947

	PER CENT OF TOTAL FIRST ADMISSIONS				
Type of mental disease	Fulton	St. Joseph	Nevada	Farmington	
Neurosyphilis	6.4	10.3	. 9.2	6.1	
Senile psychosis	22.4	25.3	18.7	5.2	
Cerebral arteriosclerosis	19.7	6.4	17.7	16.0	
Dementia praecox	18.9	19.1	20.9	27.1	
Manic depressive	7.2	7.2	3.5	9.9	
Other psychosis	16.0	24.8	23.3	16.1	
Without psychosis	9.4	6.9	6.7	. 19.6	
				-	
Total	100.0	100.0	100.0	100.0	

Source: Compiled by the staff of the Committee on Legislative Research.

Farmington moves its patients faster than the other hospitals. Of all those discharged in 1947, 53 per cent had spent less than three months in the hospital in contrast to 30 per cent at St. Joseph (Table 21). Most of St. Joseph's discharges had spent over a year in the hospital; those in this class at Farmington were in the minority. By treating and releasing patients rapidly, Farmington is able to accommodate a greater number.

Farmington differs from the other hospitals in a final respect: paroled patients are discharged six months after leaving the hospital rather than at the end of the year. The hospital can in this way discharge a number of patients in the year of their admission, something not possible when the one-year rule is followed. If patients discharged from Farmington become sick again within one year, they must secure formal admission and enter as "readmissions" when otherwise they would gain treatment as "returns from parole." Readmissions were twice as high at Farmington as at any other hospital (Table 22).

TABLE 21

DISTRIBUTION OF DISCHARGED PATIENTS ACCORDING TO TIME SPENT
IN HOSPITAL

MISSOURI STATE HOSPITALS, 1947

		PER CENT OF TOTAL DISCHARGES			
Time spent in hospital	Fulton	St. Joseph	Nevada	Farmington	
Less than 3 months	44.2	29.9	34.1	52.8	
3 months but less than 6 months	14.5	16.2	26.9	23.2	
6 months but less than 1 year.	16.0	18.6	15.6	12.8	
1 year and over	25.3	35.3	26.2	11.2	
Totals	100.0	100.0	100.0	100.0	

Source: Compiled by the staff of the Committee on Legislative Research.

TABLE 22

READMISSIONS AS PER CENT OF TOTAL ADMISSIONS

MISSOURI STATE HOSPITALS, 1947

	Readmissions	Total admissions	Readmissions as per cent of total admissions
Fulton.	. 71	560	12.7
St. Joseph	64	384	16.7
Nevada		343	17.5
Farmington		565	26.9
All hospitals	347	1852	18.7

Source: Compiled by the staff of the Committee on Legislative Research.

* * * * * *

It has been shown that the hospitals as a group are no longer adding to their custodial loads. Although separations exceed admissions, both are lower than in former years. More patients are dying and less are being discharged.

An examination of the separate hospitals has brought to light variations in the number released. In the majority, discharges were found to be proportional to the number of physicians and the consequent amount of treatment permitted. Less special therapy is given at St. Joseph and Nevada than the other two hospitals, and the smallest numbers are discharged from these hospitals.

Physicians are the instruments of treatment. If Missouri would reduce the cost of mental illness by lowering custodial accumulations, first attention might well be given to enlarged hospital staffs.

VI. The Senile Patient

During the year 1947, almost one out of every three persons admitted for the first time to Missouri mental hospitals was a senile patient (Table 23). While it is true that most of these, if not all, are psychotic, it is also certain that in many instances the psychosis is so mild that custodial care only is required.

A senile custodial care patient may be defined as one with a mental illness caused by the deterioration of organs or body tissues due to advanced age and whose psychosis is such that he needs little more than physical comfort and kindly care. For purposes of statistical measurement, the senile patient is one 65 years of age or older or one having either of two types of mental diseases associated with old age: senile psychosis, or psychosis with cerebral arteriosclerosis.

A gradual but steady accumulation of senile custodial care patients presents two serious problems. The first is that of overcrowding and the second is the overloading of the hospital staff to the extent that an active treatment program is hampered.

TABLE 23
FIRST ADMISSIONS OF SENILE PATIENTS
MISSOURI STATE HOSPITALS
1937 TO 1947

Year	Total first admissions	Number aged 65 and over	Per cent aged 65 and over	Senile by diagnosis	Per cent senile by diagnosis
1947	1502	460	30.6	497	33.0
1937		382	20.0	361	24.5

Source: Compiled by the staff of the Committee on Legislative Research.

FACTORS CONTRIBUTING TO THE INCREASE IN SENILE PATIENTS

The situations which a sunt for the increase in the number of senile patients in state mental hospitals are diverse and, in a real sense, unrelated. In the first place, persons now live longer. Medical science has increased the life span of the general population from an average of 49 years in 1900 to almost 66 years in 1945. In 1900 only 4.1 per cent of the general population was 65 years of age or over. In 1940, 6.8

per cent were in this age group and if the trend continues, as expected, 14.4 per cent of the total population will be 65 or over in 1980 (Table 24).

It is self-evident that the longer persons live the greater is the chance of a mental breakdown. This is not only true as it relates to functional mental illness but even more particularly is it true of organic mental diseases which are so common to old age. With all its advance and progress, medical science has not reached the point where it can prevent the organic deterioration of old age.

TABLE 24

ACTUAL AND ESTIMATED INCREASE IN THE PROPORTION OF THE GENERAL POPULATION AGED SIXTY-FIVE AND OVER UNITED STATES, 1900 TO 1980

Year	Number aged 65 and over	Per cent aged 65 and over
1900	3,080,000	4.1
1940	9,019,000	6.8
1980	22,000,000	14.4

Source: Russell Sage Foundation, New York, Social Work Yearbook 1945, p. 36.

In addition to this, life itself has changed. This change has been both cultural and economic in nature. The nation has been transformed from a predominantly rural community to an urban society in which living has become more complex and difficult for a large number of its people. Where once old persons could be cared for with comparative ease on a farm or in a rural community, we find that more and more of these persons are in cities where the crowded conditions and the increased tempo of urban life make living difficult both for them and those who would care for them.

Along with this economic change has come a modification of the attitude and philosophy of our people toward the aged. Where once relatives and even friends, of thse old persons would see to their care and comfort and assume the responsibility for them, now these same persons are willing, and sometimes eager, for the state to assume the responsibility. Over the last twenty years there has been a trend not only toward old age assistance programs for persons over 65 years of age but also a tendency to throw the responsibility for the care of all indigents upon government. In Missouri, old age assistance is paid wholly from state and federal funds and the feeling has grown that if the problem of the aged belongs to the state then the psychotic aged should not be an exception and they too ought to be a state responsibility. Prior to the

inception of the public assistance program these persons were cared for either in the homes of relatives or in county homes, but at present one-third of the county homes in Missouri have been closed and aged persons who are unable to care for themselves because of senility or mental illness are being sent to the state hospitals. This is not necessarily a plea or the reactivation of the county home, for too often county home care is inadequate and not the best solution for the problem of the psychotic aged. However, the closing of county homes has in most instances left no place other than the state hospitals for the care of the senile.

All of these factors have contributed to the difficulties of state hospitals. In the last ten years the proportion of those 65 years of age and over entering Missouri state hospitals for the first time has increased from 20 to 30.6 per cent (Table 23).

During the same period the proportion of those entering these hospitals with organic mental illness due to advanced age rose from 24.5 per cent in 1937 to 33 per cent in 1947.

If this trend continues, the state mental hospitals will tend to become homes for the aged and it will be increasingly difficult to carry on a modern active treatment program.

APPROACHES TO THE PROBLEM IN OTHER STATES

Missouri is not alone in this problem. Other states are facing the same situation, and some of them have turned to other forms of care as a solution. New York is using a plan in which the state is divided into districts. In each district a special institution is provided for the aged, thus leaving the other hospitals for the active treatment of younger patients.

Wisconsin has a similar program for care of custodial patients. Under this plan all first admissions are taken to a centrally located psychiatric hospital where they are given intensive treatment. If the patient does not respond to treatment and is considered a custodial care patient, he is sent back to his county of residence where he is placed in a custodial hospital maintained by the county.

It should be remarked that in Missouri permissive legislation has been enacted under which counties and cities may cooperate to render a mutual governmental service. Under the provisions of this legislation several Missouri counties could join in providing an institution for the aged which would permit counties to share the cost, and thus partially relieve each of them from a much heavier financial burden in providing this service. Properly staffed, an institution of this kind would not be subject to the criticism so often leveled at the old time county home.

Still another plan which is proving successful in ten states is the use of boarding homes. It is reported that patients are more contented and in some cases respond to treatment where the atmosphere is more home-like. Supervision by psychiatric aides is necessary for the success of this plan. Suitable boarding homes must be located and close contact with the patients maintained.

At present in the four Missouri state hospitals, approximately 2600 (or 29 per cent) of the resident population are 65 or over. Of this number it is estimated by the superintendents that at least 600 could be cared for outside the hospitals.

THE APPROACH TO THE PROBLEM IN MISSOURI

Care of the mentally ill in Missouri is treated as a joint function of the state and local government. At present the state maintains the hospitals and where families are unable to pay for care, a charge of six dollars per month per patient is made to the county of residence. This amount is not sufficient to pay for the hospitalization of such persons and it has not been an incentive to the counties to find other ways of caring for the aged. It is much cheaper for counties to pay six dollars per month for this care than to maintain a patient in a county or boarding home.

The Sixty-fourth General Assembly enacted legislation defining a "senile custodial care case" and making it the duty of the hospital staff to determine which cases fall into this category. The law further provides that when it is determined that a patient is a senile custodial care case the proper county court shall be notified by registered mail. If the county does not remove the patient within thirty days the charge for care automatically becomes \$20 per month. This law becomes effective January 1, 1949, and will apply only to patients entering the hospital after that date. No estimate can be made at this time as to the effect of this legislation. However, the problem is not so much a matter of cost as it is a matter of available resources. The mental hospitals have become homes for the psychotic aged because at present there is no other way to care for them.

That this problem is critical in Missouri is evidenced by the fact that St. Joseph is at present unable to accept any new senile custodial cases. Farmington and Nevada are accepting only a minimum number. While Fulton is still accepting this type of patient, all the hospitals are so overcrowded that it will be necessary in the very near future to clarify some of the issues involved. If the care of senile patients is a local responsibility, then some way will have to be found to force the localities to assume the burden. If it is a joint responsibility the cost can be shared as at present, and some new approach made which would lighten the load on the facilities and personnel of the state hospitals. In some

states the problem is handled altogether at the state level and local governments bear none of the expense. The question is raised here, not for the purpose of suggesting where the responsibility shall lie, but to point out that definite responsibility must be fixed at some level of government before a satisfactory solution can be found.

Clearly the problem of the senile custodial patient in Missouri is of grave concern. Its solution will not be easy. Any approach should consider the comfort and well-being of the aged and infirm and at the same time it should not be forgotten that as hospital staffs are released from attending custodial care patients, they can devote more time to those who may respond to treatment and who thus may be separated from our hospital population.

VII. State Hospital Finance

Despite ever-increasing appropriations throughout the nation, administrators of state mental hospitals yet complain of inadequate funds. Enlarged hospital populations, increasing operational costs, new and expensive therapies have demanded larger and larger budgets, which in many cases have not been matched by available funds. Staff shortages and the failure to provide certain vital services in the Missouri hospitals can be better understood in the light of an analysis of hospital finance.

EXPENDITURE PER PATIENT IN MISSOURI

The appropriation to the state hospitals for the fiscal year 1947-48 was \$3,983,560 which amounted to a contribution for the year, of \$1.02 from each citizen of the state.¹ This amount was appropriated to cover all costs of the institutions, except capital improvements, and represents an expenditure of \$1.22 daily or each patient.

For the same year the appropriation for the state penitentiary amounted to \$1.59 daily for each inmate.

ANALYSIS OF EXPENDITURES

An analysis of expenditures in the Missouri hospitals is best shown by a breakdown of the \$1.22 expended daily for each patient in 1947-48. Of this amount, fifty cents was paid out for salaries and wages and seventy-two cents for all other phases of operation (Table 25). Of the seventy-two cents spent for operation, thirty-six cents covered food costs, including foods produced on the hospital farms which are charged at current prices. This is an average cost of twelve cents per meal.

TABLE 25
FUNDS AVAILABLE PER PATIENT PER DAY

MISSOURI STATE HOSPITALS FISCAL YEAR 1947-48

Source of fund	Salaries and wages	Hospital operation	Total
General revenue	. \$.36	\$.55	\$.91
Hospital earnings	14	. 17	.31
Totals	. \$.50	\$.72	\$1.22

Source: Compiled by the staff of the Committee on Legislative Research.

¹United States Department of Commerce, Bureau of the Census, Current Population Reports, August 9, 1948 (population estimate for July 1, 1947).

Another method of analyzing expenditures is to determine what portions of each dollar expended are allocated to various needs. Out of each dollar spent, thirty-seven cents went for care and treatment, twenty-nine cents for food supplies and service, twenty-three cents for plant operation including maintenance, eleven cents for farm operation (Table 26).

TABLE 26
ALLOCATION OF EACH DOLLAR SPENT

MISSOURI STATE HOSPITALS FISCAL YEAR 1947-48

Type of expenditure	Salaries and wages	Other expense	Total expense
Care and treatment of patients	\$.29	\$.08	\$.37
Food supplies and service	. 03	. 26	. 29
Farm operations		.09	.11
Plant operation and maintenance		. 13	.23
Totals	. \$.44	\$.56	\$1.00

Source: Compiled by the staff of the Committee on Legislative Research.

ANALYSIS OF RECEIPTS

Of the amount appropriated for the 1947-48 fiscal year, \$2,962,060 was provided by the state from the general revenue fund. The remainder or \$1,021,500 was appropriated from the hospital fund, which consists of receipts from private patients, from counties for the care of indigent patients, and from miscellaneous materials sold by the hospitals. However, the hospitals actually received only \$1,006,067 from these sources. Regardless of the size of the appropriation from the hospital fund each hospital cannot use more than is collected and deposited in this fund. Any surplus reverts to the general revenue fund unless it is appropriated by the general assembly within two years. Since amounts to be received cannot be predicted with accuracy, budgeting is difficult. Actually the money available was \$3,968,127 or approximately \$15,000 less than was anticipated when the budgets were made.

Of each dollar received by the hospitals, seventy-four cents came from general revenue, seventeen cents from the counties, eight cents from private patients and one cent from sales.

Under present laws, a patient in the Missouri hospitals is either a private patient at \$50 per month or a county patient. If he is a county patient, the county of residence contributes six dollars per month to the hospital. The hospital business manager then deposits the money with

the state treasurer where it is credited to the hospital fund. This joint state-local financial responsibility presents problems of collection. In a few counties collections are very difficult. Fulton has a special problem in collecting from counties for the criminal insane who are not legal residents of the county in which they were convicted.

There are many patients whose families could pay ten, twenty or thirty dollars per month for their care but who cannot afford to pay fifty dollars per month. In some states, the charge is graduated according to ability to pay. Such a plan in Missouri would permit some to enter the hospitals as private patients who must now enter through the courts. In order to inaugurate such a plan, however, some agency would have to be charged with the responsibility of determining ability to pay. The psychiatric aide is given this duty in some states. The collection of ten or twenty dollars per month from the patient would be more than is now received and would make hospital admission easier.

THE PROBLEM OF RISING COSTS

Since the end of World War II the prices of all supplies used in the state hospitals have risen sharply. Appropriations for operations and maintenance have been increased annually since 1945 and in 1948 a deficiency appropriation was made for the latter months of the 1947-48 fiscal year. Yet, in spite of these increases which have amounted to 35 per cent since 1945-46, the wholesale price index has risen 49 per cent (Table 27). Rises in price between the beginning and end of a fiscal year present a serious problem to management. Every dollar is carefully budgeted for a specific purpose. Some operations such as the power plants cannot be curtailed. When the price of coal rises sharply during the year, funds must be taken from a flexible operation to finance this fixed one. Expenditures for food and clothing are the most flexible. Business managers report that when the price of coal or another necessarv item rises, the only alternative is to cut the expenditures for food or other flexible items. An examination of the trend in food prices, during the fiscal year ending June 30, 1948 reveals that various commodities increased from 20 per cent to 240 per cent. The most noticeable increase has been in the cheaper grades of meat. Coal prices advanced 46 per cent during the same period. It is estimated that the increase in meat prices alone affected the budget for one hospital to the extent of \$50,000. The increase in the price of coal accounted for another \$25,000.

This problem exists only during a period of rapidly rising prices, such as the last three fiscal years. The suggestion has been made that funds for food and clothing be "earmarked" but unless the earmarked fund was over-generous this would be no solution. Business managers feel that they should be free to allocate the appropriation for operations as the needs dictate.

It is apparent that many of the problems of the Missouri state hospitals revolve around finance. The rendering of maximum service within the limits of available funds, requires the careful attention of hospital administrators.

TABLE 27

APPROPRIATIONS FOR OPERATION AND MAINTENANCE AT MISSOURI STATE HOSPITALS COMPARED WITH A WHOLESALE PRICE INDEX 1945-46 TO 1947-48

Year	Appropriation for operation and maintenance		
1947-48	\$2,168,500	160.3	
1946-47	1,824,750	139.2	
1945-46	1,607,500	107.9	
Per cent increase, 1947-48 over 1945-46:	34.9	48.6	

^{*}Bureau of Labor Statistics' "Index of Wholesale Prices" (1926 = 100).

Source: Compiled by the staff of the Committee on Legislative Research; price indices are average of monthly data obtained from United States Department of Commerce, Survey of Current Business, August, 1948; September, 1947; September, 1946.

VIII. Hospital Plants and Equipment

The state hospital built at Farmington in 1903 was the last to be established in Missouri. Since that time new wings have been added and new buildings constructed at all the hospitals as the need dictated and funds permitted. Between 1934 and 1939, \$13,788,000 was expended for new construction. Of this amount \$10,000,000, the proceeds of a bond issue, was from state funds and the remainder came from the federal government.

At the present time an extensive program of building and repair is under way at each hospital. The appropriations for this construction are from the post-war reserve fund. This post-war fund is the major portion of a surplus which accumulated during recent years and was set aside by the general assembly for post-war construction and capital improvements. When completed, this expansion should alleviate some of the most pressing plant needs.

TYPES OF CONSTRUCTION

The hospitals at Fulton, St. Joseph and Nevada are of the "Kirkbride" type of construction having central administration buildings with numerous wings extending out and back—all interconnected. This type of construction was originated by Dr. Kirkbride, one of the pioneer psychiatrists of the country. It has some advantages in that it permits moving patients to the central dining hall or from one ward to another without leaving the building. It is also more economical to heat and maintain one large building than several smaller ones. However, most authorities now favor the plan of having smaller units. The more recent construction in Missouri has consisted of rather large units but the Kirkbride plan has been abandoned.

The hospital at Farmington is radically different in construction from the older institutions. The administration building houses the offices, the canteen, and provides quarters for a few employees. The cottage plan replaces the Kirkbride type of construction here. There are ten cottages each housing from fifty to seventy patients. The lower floor is a day room. The upper story is a dormitory. This plan has some advantages since the patients are kept in smaller groups. In case of fire a smaller number of patients would have to be removed, and since the buildings are only two stories in height evacuation would be easier. Another advantage is the greater amount of sunlight and air which can be had in a smaller structure. The atmosphere at an institution where the cottage plan is used seems less custodial and the plant

as a whole lends itself to a better and less formal arrangement. In addition to the cottages at Farmington there are three large buildings for patients.

NEW CONSTRUCTION AND REPAIR

Because of the shortage of labor and materials during the war years the needs of the hospitals have accumulated. This has necessitated a rather extensive building and repair program which is now getting under way. Appropriations for these purposes amount to \$5,187,719. New infirmary buildings for aged patients are to be constructed at St. Joseph, Nevada, and Farmington. Each hospital is to have a new occupational therapy building. In addition, considerable amounts have been allotted for repairs and for construction of physicians' cottages, dormitores and numerous smaller buildings (Schedule III).

Schedule III

APPROPRIATIONS FROM THE POST WAR RESERVE FUND FOR CONSTRUCTION AND REPAIR

MISSOURI STATE HOSPITALS FISCAL YEAR 1948-49

	Type of Building (Repair or Addition)	Appropriation
Fulton	Storeroom	\$ 100,000
	Houses for Physicians	120,000
	Garage and Shop	8,000
	Calf Barn	7,500
	Bakery	15,000
	Occupational Therapy Building	246,250
	Employees' Dormitory	450,000
	Purchase of Land	25,000
	Repairs and Replacements	192,750
	Total	\$1,164,500
St. Joseph	Infirmary	600,000
	Houses for Physicians	120,000
	Farm Dormitory	50,000
	Corn Crib	3,000
	Silo	1,000
	Storage Shed	1,500
	Occupational Therapy Building	195,625
	House for Dairy Supervisor	8,000
	Power House Equipment and Repair	
	Purchase of Land	4,500
	Repairs and Replacements	205,500
	Total	\$1,301,625

Schedule III .-- Continued.

	Type of Building (Repair or Addition)	Appropriation
Nevada	Infirmary	697,100
	Houses for Physicians	
	Occupational Therapy Building	250,650
	Power House Repair and Equipment	183,500
	Purchase of Land	13,500
	Repairs and Replacements	
	Total	\$1,374,250
Farmington	Infirmary	400,000
	Storeroom	135,000
	Houses for Physicians	120,000
	Occupational Therapy Building	229,344
	Construction of Tunnels	70,000
	Fireproofing Harrison Building	150,000
	Purchase of Land	25,000
	Repairs and Replacements	218,000
	Total	\$1,347,344
	Grand Total	\$5,187,719

Source: Compiled by the staff of the Committee on Legislative Research.

PRESENT CONDITION OF BUILDINGS

No major construction has been done at the hospitals since 1939. The buildings constructed at that time are all well-planned and are fireproof. However, much of this construction was faulty. Leaking walls and roofs have been troublesome since the beginning, and so far no way has been found to eliminate the trouble even though considerable sums have been expended in an effort to do so.

The danger of a serious fire is an ever present menace to all the hospitals. The older buildings are not of fireproof construction and this is a matter of serious concern. Mental patients present a special problem in case of fire. It would be extremely difficult to get patients out of the buildings even with the best of fire escapes. The older buildings are sadly lacking in this respect. Many of the fire escapes are old and outmoded and the older cottages at Farmington have wooden stair wells on the inside which could become impassable. If this should occur the only exit would be by means of a single narrow escape opening off a small room at the back of the cottage. The greatest hazards however prevail in the larger buildings at Fulton, St. Joseph and Nevada. The large number of patients, the old wooden floors—many of them oiled

soaked, and the lack of adequate fire escapes all contribute to the fire hazard.

On the positive side however it can be said that all wards are equipped with chemical fire extinguishers and many have hoses connected to the water system. The city fire departments are available at each hospital and Farmington has a special hose cart which can be moved quickly to any part of the grounds. As older buildings have been remodeled considerable fireproofing has been done.

WATER SUPPLY AND SEWAGE DISPOSAL

The water supply at St. Joseph is from the city system. The other three hospitals secure water from deep wells. At Fulton and Farmington new wells have recently been completed and the water supply is adequate. At Nevada a new well is needed as the present one will not carry at full twenty-four hour load. Another problem at Nevada is presented by the amount of mineral in the water. This mineral collecting in the pipes requires frequent attention.

Sewage disposal is effectively handled at St. Joseph by the city system. At Fulton a disposal plant is owned jointly by the city and the hospital. The hospital at Farmington has a disposal plant which has recently been repaired and is in a satisfactory condition. The only hospital where sewage disposal presents a problem is Nevada. At present raw sewage from both the city and the hospital drains into a creek some miles outside the city limits.

POWER PLANTS

The problem of producing electricity, heat and water pressure continuously and in adequate amounts is common to each of the hospitals. As the plants have been expanded by the addition of new buildings, the excess capacity has been reduced. At Fulton, the present building program when completed will demand the use of all three of the generators at peak load. There will be no stand-by generator in case of a breakdown.

At St. Jo eph the power plant is old and is adjacent to the kitchen. One of the boilers is so close to the wall that the heat is extreme in summer. An explosion would cause serious damage and in all probability loss of life. The present plant has but two old direct current generators. If and when the capacity of this plant is increased, it would be better located well away from the other buildings.

At Nevada the power plant is operating at near capacity as it was not enlarged when new buildings were added ten years ago.

The plant at Farmington has an old boiler which was repaired after being burned out and according to the engineer is no longer efficient. He suggests that a new unit for preheating boiler water is needed. In addition a unit is requested to supply hot water to the hospital. Under the present arrangement the temperature cannot be properly regulated and at times scalding water comes out of the faucets.

Both Nevada and Farmington are in need of coal handling equipment. At present coal is unloaded by hand and conveyed to the stokers in wheelbarrows manned by patients.

Appropriations of \$112,500 at St. Joseph, and \$183,500 at Nevada have been made for power plant repair. This should eliminate many of the existing difficulties at these institutions.

FARM OPERATIONS

In most states it has been the custom to carry on farming operations at all institutions where patient labor could be used. Missouri is no exception to this rule. Each of the state mental hospitals has operated a farm since its establishment.

Originally farm operations were designed to produce as much of the food used as possible and by doing this with patient labor, to minimize institutional costs.

In recent years this attitude has undergone some change. Psychiatrists now tend to view all activities of the hospital, including farm operations, as being conducted for the benefit of the patients. They hold that in the final analysis profit is secondary and farm operation ought not be considered solely as a business enterprise.

Altogether the four hospitals use 4,736 acres of land. The state owns 3,613 acres and an additional 1,123 acres are leased (Table 28).

TABLE 28

ACREAGE OWNED AND LEASED

MISSOURI STATE HOSPITALS

JUNE, 1948

	Fulton	St. Joseph	Nevada	Farmington	Total
Owned	1068	1005	840	700	3613
Leased	190	212	571	150	1123
Totals	1258	1217	1411	850	4736

Source: Compiled by the staff of the Committee on Legislative Research.

Not all of the land owned by the state is under cultivation. The buildings and adjacent grounds occupy a sizeable acreage. This accounts

for the difference between the acreage used in production as compared to total acres controlled by the institution (Table 29).

TABLE 29

LAND USE

MISSOURI STATE HOSPITALS

JUNE, 1948

	Fulton	, i		Farmington	Total
Field crops	108	135	775	215	1233
Garden	201	245	120	100	666
Pasture	785	660	386	150	1981
Hay	105	35	. 90	40	270
Totals	1199	1075	1371	505	4150

Source: Compiled by the staff of the Committee on Legislative Research.

The most carefully managed operation at each of the hospitals is the dairy. Each institution has a fine purebred herd of Holsteins. In order to supply a pint of milk daily for each patient and employee, over 1,300 gallons of milk are required for the four institutions (Table 30). It can be readily understood that this quantity of milk would be difficult, if not impossible, to secure from local dairies.

Milk production at St. Joseph and Farmington in 1947 was not sufficient to meet the minimum requirement of one pint per day per patient (Table 30). During May 1948 three of the hospitals served milk at least twice each day but at St. Joseph it was served but once, and only on occasion twice daily. There is never a surplus at any of the hospitals for, as production increases, the additional milk is served the patients.

TABLE 30

DAILY MILK REQUIREMENT AND PRODUCTION

MISSOURI STATE HOSPITALS, 1947

		Daily production in gallons
Fulton	380	. 482
St. Joseph	362	316
Nevada	315	465
Farmington	268	250
	MARKET TOTAL PROPERTY.	An a recognition of the
Total	1325	1513

^{*}Based on one pint daily for each patient and employee.

Source: Consolidated Dairy Report, Missouri Mental Institutions, March, 1948.

All of the herds are tested regularly for tuberculosis and Bang's disease and infected animals are destroyed. In addition, milk is pasteurized at each of the hospitals except Farmington, where pasteurizing equipment has been purchased and will soon be installed.

In order to produce a supply of fresh vegetables for table use, truck gardening is receiving increasing emphasis at the state hospital farms. None of the hospitals is able at present to produce enough vegetables for year around consumption even though the summer surplus is canned.

According to management, it has been found more advantageous to concentrate on vegetable gardening rather than on production of field crops. To purchase the necessary vegetables for the hospitals would entail enormous expense. Where intensive cultivation is practiced and weather conditions are favorable, the necessary crops can be produced in abundance. It may be possible in the future to produce enough vegetables to last throughout the year as more land is devoted to this purpose.

The production of pork is another significant operation of the hospital farms. The difficulty of securing a diet sufficiently high in protein is partially offset by the production of meat. A valuable by-product is lard for baking and cooking. During 1947 more than 650,000 pounds of pork and 100,000 pounds of lard were processed (Table 31).

TABLE 31

PORK AND LARD PRODUCTION

MISSOURI STATE HOSPITALS, 1947

	PRODUCTION IN PCUNDS				
	Fulton	St. Joseph	Nevada	0	Total
Pork	150,550	237,065	171,946	97,017	646,578
Lard	34,130	21,357	40,000	6,000	101,487

Source: Compiled by the staff of the Committee on Legislative Research.

At all the hospitals garbage is fed to the hogs. This is a source of cheap feed. The garbage is picked up daily and taken to the hog farms where it is fed on the ground. Recognizing that this is not a sanitary practice, two of the hospitals have made plans for concrete feeding platforms. Sanitary engineers from the State Division of Health now recommend that all garbage fed to animals be sufficiently cooked to destroy disease germs. None of the hospitals has the necessary equipment to do this at present.

Only two of the hospitals operate poultry farms. At St. Joseph and Fulton it is felt that poultry products can be purchased more econom-

ically than through production at the hospital. It is especially difficult to secure the services of a trained poultryman and without these services the chances of success are not good.

Nevada has a laying flock of approximately 1400 hens. During 1947 close to 17,500 dozen eggs were produced and 500 hens and 900 fryers dressed for table use.

At Farmington poultry and egg production is emphasized more than at Nevada. In 1947 around 33,000 dozen eggs and 15,000 pounds of dressed chickens were produced. In addition a turkey flock is maintained and over 12,000 pounds of dressed turkeys were processed in 1947 (Table 32). At this hospital a trained poultryman is in charge.

TABLE 32

POULTRY PRODUCTION

NEVADA AND FARMINGTON STATE HOSPITALS, 1947

	Nevada	Farmington	Total
Eggs	17,780 Doz.	33,214 Doz.	50,994 Doz.
Dressed Chickens	6,898 Lbs.	15,788 Lbs.	22,686 Lbs.
Dressed Turkeys		12,695 Lbs.	12,695 Lbs.

Source: Compiled by the staff of the Committee on Legislative Research.

Canneries have been maintained at the hospitals for many years. The chief value of a cannery lies in the preservation of food for winter use that would otherwise be wasted. For example, several carloads of government surplus apples were distributed to the hospitals during May 1948. At each institution several thousand gallon cans of apples were processed and stored for winter consumption. In addition, much garden produce, such as greens, beans, peas, and tomatoes, is canned each year.

The operation of these farms is a major undertaking involving the investment of thousands of dollars of state funds in land and equipment. The value of these operations lies in the production of needed food for hospital consumption, combined with the benefit of outdoor work for the patients. For this reason, no attempt is made here to show the profit or loss to the state.

IX. Methods of Admission to State Hospitals

It is not easy to obtain treatment for mental disease. Getting into a state hospital involves almost as much red tape as getting out of the army. A person with pneumonia is sped to a hospital in an ambulance; a person raving with dementia praecox may be held in a jail cell for as long as five days before being sent to a state hospital.

Admission to state hospitals has traditionally been a legal procedure. Back in the days when the asylum was a dread place mentioned only in whispers, it was believed that when a person lost his reason he must be hidden away from society for the rest of his days. This was a serious step. Only one person had to be wrongfully shut up in an asylum for the law to demand additional safeguards to protect citizens from the wiles of scheming villains. The inheritance of a cumbersome legal process for admission has been a consequence. The progress made in the treatment of mental disease has not in every case been accompanied by a corresponding advance in the legal procedures dealing with the afflicted before they reach the mental hospital.

METHODS OF ADMISSION IN MISSOURI

The procedure established in 1855 for comitting the deranged to the first "asylum for the insane" is largely followed today. Since the time this early law was enacted, treatment has risen above the level of the straitjacket. The process of admission, however, remains for the most part in that primitive stage permitting arrest and jail confinement.

The great majority of all patients in the state hospitals are admitted in one of two ways. Those unable to pay for their treatment must go through a probate court and become the charges of a county. Those able to finance their hospitalization can be admitted on the certificate of two physicians. The former are "county patients" and the latter "private patients."

The procedure established in 1855 for admitting indigent patients was transferred from the jurisdiction of the county courts to the probate courts in 1945. A person seeking admission for another must fill in and file with the court a verified statement that he believes the person to be insane. The court must then serve a notice on the alleged insane person, informing him that a hearing will be held at a certain time and place and that he has the right to be present and to be assisted by counsel. If the person is considered violent or dangerous, a warrant may be issued

¹Laws Mo. 1945, p. 905 §9335 to §9339

authorizing the sheriff to "apprehend . . . and confine" him until the time of the hearing. The county jail is the customary place of confinement.

The law specifies that the notice must be served a "reasonable time" before the hearing. In practice, the courts hold hearings five days after serving notice. The purpose of the delay is to allow the person time to prepare a defense against the charge of insanity.

The hearing may be held before a jury, but this right is most often waived. If there is no attorney representing the person, the court appoints one to represent him. At least one of the witnesses the court examines must be a "reputable physician" who shall testify as to the person's mental state. The court also inquires into the extent of the person's estate, for the county is legally responsible only for those who cannot pay the fifty dollars per month charged private patients.

If the testimony justifies such action, the court issues an order stating that it has found the person to be insane and a "fit subject to be sent to a state hospital". A warrant may then be issued to the sheriff authorizing him to "arrest such insane person and convey him to the state hospital." The transportation may be handled instead by the person's relatives.

The procedure for private patients is considerably different.² Those arranging the admission must fill in an application form and submit it to the hospital superintendent. Accompanying this must be a verified certificate signed by two physicians stating that they have examined the person within the last two months and believe him to be insane. The superintendent has the authority to accept or reject the patient. No patient will be admitted until the hospital has received \$150 in cash (payment in advance for three months) and a bond executed for \$500.

In 1935 a law was passed authorizing admission without court order for those not able to enter as private patients.³ The superintendent of a state hospital is given the authority to treat for six weeks "indigent residents" of the state who meet certain conditions. First, the person must be sane; second, he must be "suffering from a nervous or mental illness or other affliction" for which the hospital can offer treatment, and third, "he must qualify as likely to become a public charge" in the absence of such hospital treatment. All of these exacting conditions are seldom combined in one person, and the procedure is not in current use. Few, if any, patients have been admitted under this law.

By the provisions of a 1945 statute, persons can obtain treatment without admission.⁴ The state hospitals are authorized to give "treat-

²R. S. Mo. 1939, § 9322 to § 9327

³R. S. Mo. 1939, § 9357.

⁴Laws Mo. 1945, p. 913.

ments or injections of serum" to those "who may be suffering from nervous or mental diseases, but who do not need hospitalization." Persons so treated are known as "out-patients." The charge is limited to five dollars per treatment. No charge is made to those certified as indigent.

The admission of alcoholics and drug addicts follows the same pattern as that for mentally ill persons going through the probate courts.⁵ Drug addicts may voluntarily submit themselves for treatment by signing a declaration of intent in a probate court.

Persons who are charged with a crime and are suffering from a mental disease can be admitted only after a jury trial.⁶ The special problems in connection with criminal law will be discussed in the next chapter.

When it is found in a probate court proceeding that a person is a veteran, he may be sent to a Veterans Administration hospital instead of a state institution.⁷

PROBLEMS IN CONNECTION WITH ADMISSION

The poor are, in certain respects, at a considerable disadvantage in gaining admission to a state hospital. They have recourse only to the cumbersome and distasteful court procedure, while those with financial means can gain admission quicker and more easily on the certificate of two physicians. The hurdles placed in the path of indigent persons merit closer attention.

The necessary procedure is so unpleasant and so involved that for many it makes admission a last-ditch measure. Few want to submit to the unfavorable publicity attached to the public hearing. The person committed on a court order loses all civil rights. It is easy to understand why many families hesitate to use this process. If eventually the festering ailment erupts in acts of violence or attempted suicide, admission is then forced upon the reluctant family.

Once started, the machinery for court admission moves slowly. The practice of holding the hearing five days after the application is universal. A proper and thorough investigation of the person's estate to determine his financial responsibility is time-consuming. Sometimes county courts, which must authorize the payment of six dollars per month to the hospital, are not in session. Further delay results. The longer the illness persists before therapy begins, the more difficult it is to effect an improvement. All delays work to the disadvantage of the sick person, the doctors who treat him, and the state which pays for his prolonged care.

⁵R. S. Mo. 1939, § 509 to § 517.

⁶R. S. Mo. 1939, § 9348 to § 9351

⁷Laws Mo. 1947, Vol. I, p. 4, § 17.

Perhaps the most serious defect of the process is the lack of a provision for handling violent victims of the disease. There is no law which permits such persons to be taken directly to a state hospital. County sheriffs have no facilities for properly caring for them. There is little wonder that hospital staffs become discouraged when they receive patients who have spent a week or so in a county jail.

A problem common to both the major methods of admission is the requirement that either the court or two physicians certify that the person is "insane." Now "insanity" is not identical with "mental illness." The one is a legal and the other a medical term. Suffice it to say that many people become mentally ill without meeting the legal tests of insanity. Missouri is by this provision legally excluding all those in the early stages of mental disease from state hospital treatment. What is happening is in effect equivalent to requiring a house to be engulfed in flames before the fire department can be summoned. Those with mere smoldering fires of mental disorder cannot be admitted. This all-ornothing policy hampers any attempt to stamp out mental illness in its early stages.

The course followed by a private patient in gaining admission, though simpler than the court route, has its limitations. In the first place, the law specifies that "the indigent insane . . . shall always have preference over those who have the ability to pay." It would seem that patients should be admitted according to their needs, not their financial status. The second restriction placed on this method is the charge. There are many who are not able to pay fifty dollars per month for their treatment. They would be glad to spend a lower amount within their means in order to by-pass the unpleasant court admission. These conditions limit the use of the private-patient method to small numbers.

The problem in Missouri then is largely one of lack. There are no provisions for admission that offer all persons quick and easy access to state hospital treatment.

METHODS OF ADMISSION IN OTHER STATES

Other states have difficulties similar to those in Missouri. Many have minimized these problems in recent years by enacting procedures which facilitate quick admission. To find such laws one need only cross Missouri's borders into the neighboring states of Arkansas, Illinois, Iowa, Kansas, Nebraska or Oklahoma.

Under a procedure known as "voluntary admission," a person goes to a state hospital and presents a signed application for treatment

⁸R. S. Mo. 1939, § 9330.

to the superintendent. After examining him, the superintendent uses his own discretion in accepting or rejecting the applicant.

Each of the six bordering states mentioned above provides for such a method. Although it is characteristic that the person authorize his own admission, some states make the procedure available to those too sick to admit themslves. A person's near-relative or guardian can make the application for voluntary admission in Arkansas and his relative or attorney can do so in Illinois. The parent or guardian of a minor can make the necessary arrangements in Arkansas, Illinois and Oklahoma.

No time limit is set on the hospitalization in the usual case. The patient has the right to leave after giving written advance notice of his intent.

Although the application alone is necessary in most states, a physician's certificate is also required in Kansas.

The voluntary method has its principal value in permitting quick admission to persons before their disorders become deeply intrenched. The method is open to all, does not apply a label of "insane," and does not take away civil rights.

Forty-two states have provisions for voluntary admission. Missouri and five others⁹ do not.

Arkansas, Illinois and Oklahoma have eliminated the practice of holding incompetents in jails by establishing a method of "emergency admission." In these states a person with an acute psychosis making him dangerous to himself or others may be taken directly to a state hospital. A physician must certify that the person needs immediate hospital care and a relative must fill in an application form. Emergency admission is usually authorized for a limited period. Fifteen days is specified in Illinois, and ten in Oklahoma. The person arranging the admission must obtain authorization for a longer residence in the hospital before the end of the emergency period. The importance of this method for violent patients is clear.

By means of an "observational admission" a person can secure treatment for a two or three month period without a formal court hearing. In Iowa and Oklahoma two physicians authorize such an admission by certifying to a hospital superintendent that the person needs diagnosis and treatment. An application form must accompany the medical certificate. The superintendent has the power to grant or refuse admission.

In Kansas and Oklahoma a judge can authorize observational admission without holding a hearing. By this means a judge can obtain the

Alabama, Florida, Georgia, Mississippi and North Dakota.

opinion of hospital authorities before issuing a final court order. In Oklahoma all admissions through a court are for an observational period at the outset. Hospitalization for a longer period is authorized automatically on receipt by the court of a hospital superintendent's certificate stating the need for prolonged care.

Sixty days is the limit placed on observational admission in Iowa and Oklahoma. The completion of examination and treatment terminates it in Kansas.

The observational procedure permits quick admission. It avoids the delays of a court hearing. It provides accurate information as to the need for further treatment, and it does not entail an insanity decree or the loss of civil rights.

There has been a movement in the last five years to bring up to date legislation affecting the mentally ill. In 1943 Arkansas made a complete revision of its mental hygiene laws, adding some of the methods of admission discussed above. Illinois followed suit in 1945, and Oklahoma and Oklahoma and Nebraska in 1947. Iowa and Kansas each added a new method of admission to their statutes in 1947. By revision in their mental hygiene laws, these states have attempted to remove the obstacles that have impeded the early treatment of mental disease.

X. The Criminal Law and Psychiatry

A problem of no mean proportion is presented in the proper disposition of the mentally ill person who is charged with crime and who may or may not be responsible for his act. It is in this area that the legal and medical professions have recently come in contact with each other. Fundamentally criminal law is based on ethics and is concerned with the relation of one member of society to the others. Psychiatry is interested in individual human behavior, which after all, is essentially the same. Yet the law has primarily interested itself in the criminal act, while psychiatry has placed the emphasis on the actor. It is here that psychiatry and the law are at variance. It is more than a difference in the use of terms.

Civil law has long recognized the need for care of the mentally ill person so long as he has not broken the law. Provisions for public hospitals, care and treatment, methods of admissions, and guardianship proceedings, all attest this fact. Yet, once having become a violator, the criminal law has been peculiarly slow to afford him the same care and treatment. It has set up rigid and arbitrary tests for legal "insanity," while generally ignoring medical and scientific knowledge of mental illness.

WEAKNESSES IN PRESENT CRIMINAL-INSANE LEGISLATION

The word "insane" is a legal term which has no clear-cut technical meaning either in law or in medicine. It is used in the statutes to designate either of two conditions: (1) any type or degree of mental illness, or (2) a degree of mental disorder which requires commitment to an institution. Very often the term is used in the law without any indication of which of the two meanings is intended. For example, some states have provisions that no act can be punished which was committed in a "state of insanity." In one decision this was interpreted to mean that no person suffering from a mental disorder of any kind could be punished. Most courts, however, interpret such statutes to include only those who are so mentally disordered as to come within the test of responsibility which is accepted in the jurisdiction.

Psychiatrists use the term "mental illness" to indicate any state of deviation from the so-called normal. Recognizing that there is always variation in the degree of illness, this broad term is broken down into various classifications. Not all mental illness is so severe as to preclude a knowledge of right and wrong.

¹Adair v. State (1911) 6 Okla. Crim. 284, 118 Pac. 416, p. 136.

At present in most states the law seeks to base the determination of insanity upon one or more of three tests. These are: (1) a knowledge of right and wrong, (2) the existence of delusion, and (3) the existence of an irresistable impulse. Both the defense and prosecution are privileged to secure expert medical witnesses. It is at this point that the "battle of the experts" takes place. The witnesses for both sides are often subjected to lengthy hypothetical questions and heckling cross-examination until juries in their confusion have been forced to render decisions as to the mental condition of accused persons without the information which clear-cut medical testimony should be able to give them.

Three fundamental weaknesses stand out in criminal insane legislation now in operation in most states: (1) There is a lack of proper expert examination of persons accused of crime before trial which often results in conviction of persons actually insane who must be transferred to a mental hospital soon after being sent to prison. (2) Tests of responsibility are not applied in the light of modern psychiatric knowledge. (3) Juries are rarely given the benefit of competent and unbiased expert judgment on the question of the mental condition of the defendant. On the contrary they are often confused by the conflicting testimony of those experts testifying for the prosecution and those in behalf of the defense.

These in brief are the problems that confront the courts operating under present criminal insane legislation. Only in a few states has the legal concept of insanity changed substantially in the last fifty years. Under present procedure the plea of "not guilty by reason of insanity" has developed an odious meaning in the minds of the general public. Because of the way in which it has been presented, expert testimoney has often become discredited.

CRIMINAL INSANE LAWS OF MISSOURI

As in most other states, the Missouri laws dealing with the criminal insane have not been amended or changed for many years. The present laws provide that the jury shall decide the question of insanity and whether or not the defendant has recovered.² If recovered, the defendant is discharged from custody. If not recovered, the court may commit him to the state hospital if it is felt that it is unsafe for him to be at large.³

Persons who become mentally ill while serving sentences may also be sent to the state hospital by order of the governor.⁴ The governor may also pardon a person who recovers in a mental hospital provided

²R. S. Mo. 1939, § 9348.

³R. S. Mo. 1939, § 9349.

⁴R. S. Mo. 1939, § 4191.

he has served two-thirds of his sentence before becoming mentally ill. For persons who become mentally ill before or during execution of sentence, provision is made whereby the governor may commute or suspend sentence. If sentence is suspended the person must serve it upon recovery.

The legal test for insanity in Missouri is the individual's capacity to distinguish between the right and wrong of his act at the time of committing it. This is the only test applied and the jury must make the determination either with or without the benefit of expert testimony. Here the Missouri courts are in the same dilemma as those of many other states. Both side seek to prove opposite contentions by means of this testimony. To be of maximum benefit to the jury, which it must be remembered is always composed of laymen, medical testimony should be presented by qualified psychiatrists who represent neither side and whose testimony could be considered impartial and unbiased.

Another difficulty in Missouri is a result of the joint state-local financial responsibility for the mentally ill. Where criminally insane persons are committed from a county but are not legal residents of that county, the state hospitals are unable to collect the local monthly charge for their care. A slight modification in the present law would make counties financially responsible for those persons.

APPROACHES TO THE PROBLEM

Some of the larger cities, and at least three states, have attempted legal reforms designed to eliminate some of the weaknesses of the present criminal insane laws. Chicago, Boston and Detroit for example maintain psychiatric clinics in connection with their municipal courts. All persons who are charged with serious crimes or whose mental condition is in doubt are examined in these clinics immediately after arrest. A report is made to the court where it is determined whether the individual should be released on bail or referred to the division of mental diseases for further study. If the examination reveals the presence of mental illness, the court may recommend commitment to an institution.

The Briggs Law in Massachusetts which became effective in September 1921, provides that whenever a person is indicted for a capital offense or is known to have been indicted for any offense more than once, he is to be reported to the State Department of Mental Diseases. The department appoints two psychiatrists to examine the defendant and report on his mental condition. This report is available to the court, the district attorney, counsel for the defense, and under a recent amendment, to the probation officer. This plan is said to have the following

⁵R. S. Mo. 1939, § 9353.

advantages: (1) it eliminates the necessity for laymen to determine whether or not the defendant is mentally ill, (2) the examination is made by a neutral unbiased agency, and (3) an examination immediately after arrest may eliminate the necessity for a long expensive trial, thus protecting in some measure the mental health of the offender. One disadvantage of the plan is that the examinations are given only to certain types of offenders (those indicted for capital offenses and recidivists). Another possible weakness lies in the fact that examinations must often be given on short notice and as a result are sometimes not as conclusive as they should be.

During the first nine years this law was in operation, 1365 defendants were examined. Of this number 259 or 18.9 per cent were found to be mentally ill. Studies of the operation of the law reveal that, on the whole, courts have been inclined to follow the recommendations of the examiners. Defense counsels have also cooperated to an extent which few had expected. The psychiatrists' report has usually been accepted by both sides and no other medical testimony has been introduced.

New York in 1936 amended a then-existing law of a similar nature, to insure the services of a qualified psychiatrist on an examining commission. This commission consists of a lawyer, a layman, and a psychiatrist. All persons charged with felonies are examined if there is any doubt about their mental condition. If found psychotic or mentally defective the court may commit them to the proper institutions.

These laws have marked an attempt to treat the mentally ill offender in a just and humane manner, and to eliminate the "battle of the experts" which has so often been confusing to juries.

THE PSYCHOPATHIC PERSONALITY

The problem presented by the psychopathic personality is so serious that it is deserving of special consideration. This type of person exhibits a certain kind of behavior which is anti-social. Yet he is not insane either in the legal or medical sense. Persons who fall into this classification usually have continuous histories of instability and maladjustment dating from childhood. They are frequently in trouble and if sent to prison, they are difficult to manage and when released they immediately get into trouble again. If sent to a mental hospital they are also troublesome and are usually discharged soon as "without psychosis." For the worst of these psychopaths there is no known specific cure, and the only satisfactory control seems to be that of isolation.

From a medical point of view these persons are unfortunate and deserve special consideration. They seem to be unable to control their

impulses. While at liberty they are destructive and a menace. As a rule they do not improve during a prison term and are likely to be more dangerous following release.

The usual history of the psychopath is that at first he is sentenced for short terms for minor infractions of the law. Sooner or later he commits a serious crime with seemingly no motivation. If detected and tried the question of insanity arises. Since the psychopath is neither legally insane nor medically psychotic there is no place for him except in a penal institution.

Since the psychopathic personality is readily diagnosed, some criminologists now recommend that this type of person be segregated in special prison units or in special hospitals where they could remain until a definite improvement occurs or a specific cure is discovered. Although such treatment is drastic it may be the only way to reduce the number of seemingly senseless crimes that so often make the headlines of our daily newspapers.

XI. The Control and Prevention of Mental Illness

Increasing populations and overcrowding continue to plague the state hospitals. The average daily population of the Missouri hospitals was 8899 in July 1947. It reached 9016 in July 1948. Admissions totaled 931 in the first six months of 1947. They rose to 1020 in the first half of 1948. The hospitals have 16 per cent more patients than they were built to accommodate (Table 33).

The present building program will relieve overcrowding to a degree. A constant expansion of physical facilities is, however, only one method of meeting the problem. There are two other ways. One is to reduce the present hospital populations and the other is to lessen the number of admissions. The control and prevention of mental illness seek to bring about these ends.

TABLE 33

POPULATION, RATED CAPACITY AND OVERCROWDING

MISSOURI STATE HOSPITALS

JULY, 1948

	Average daily population	Rated capacity*	Per cent overcrowding
Fulton	2575	2400	7.3
St. Joseph	2504	2200	13.8
Nevada	2076	1600	29.8
Farmington	1861	1600	16.3
All hospitals	9016	7800	15.6

Source: Compiled by the staff of the Committee on Legislative Research.

METHODS OF REDUCING HOSPITAL POPULATIONS

Visits to the hospitals brought out the fact that the doctors would like to carry on more treatment than is possible at present. Some therapies known to the profession are not used, and others are limited in application. Hospital staffs feel that an increased degree of active treatment would permit more patients to be sent home and would reduce the number transferred to custodial wards.

Treatment alone cannot be expected to diminish populations. At the present time the hospitals are troubled by the large numbers that

^{*}Superintendents' estimates of capacity.

return for further treatment. For each 100 paroled in 1947, another 46 came back within a year of release. For every 100 discharged, 34 were readmitted. Staff physicians know why these returns are high. None of the hospitals has a program of follow-up care for supervising the paroled or discharged patient. When a person leaves one of the state hospitals he is thrown completely on his own tottery resources. Most often he goes back to his home and comes face to face with the same problems that brought about his collapse. Cool receptions in the community are usually more prevalent than understanding help. Under a program of supervision the patient would be visited once or twice a month by a psychiatric aide and would be given help with his problems. The hospitals know that with adequate follow-up supervision they can help many patients adjust to normal life and prevent their return to the hospital.

Staff doctors are aware that with further treatment and proper supervision a certain number of patients sitting on custodial wards could be care for outside the hospital. They are responsible for so many patients that routines of admission and custodial care consume all their time. There is little opportunity for screening these sitters to find the ones suitable for further treatment or for home care. Such examinations would be a first step in reducing custodial populations.

At each hospital there are a few patients who are well enough for home supervision but who have no relatives. Then there are those unfortunate ones whose relatives will have nothing to do with them. Both these types are suitable for a plan called "family care" under which foster homes are established for supervision outside the hospital. States utilizing this plan employ psychiatric aides to investigate homes willing to board mental patients in return for a fee from the state. Staff doctors carefully select those well enough for life away from the hospital. The aide pays regular visits. Placement in family care helps a person move from dependency on the hospital to self-support. Many respond favorably to the homelike atmosphere and are later discharged. The plan is therefore a proven therapy as well as a method of reducing custodial populations.

PREVENTION

Any plan aimed at preventing the development of mental disease is valuable to a state hospital because it reduces the number of persons requiring admission. Prevention begins with the child. Doctors know that many psychiatric disorders are traceable to emotional flaws originating early in life. Any help that can be given parents to insure the development of sturdy personalities in their children is a proper function of prevention.

Doctors know too that infections in a prospective mother can be passed on to the growing embryo in the form of damage to the developing brain or nervous system. They also understand that a mother's fears and anxieties about the event of childbirth condition to a certain extent her attitude toward the new baby. Her emotions may be later reflected in her child. The "maternal health clinics" operated by departments of health are agents of prevention in many states.

Psychiatrists are aware that with babies the problems of weaning, feeding and toilet training involve emotional as well as physical adjustments. Many mothers welcome help at this stage of development. For some children, the arrival of a baby brother or sister or the first year in school takes on the aspect of a major crisis. These events sometimes leave their marks. Mothers often need help to diminish the influence of these occurrences. In states operating "well-baby clinics," the services of psychiatrists and nurses are available for consultation. The guidance offered in these clinics may prevent the development of emotional conflicts that later attain the proportion of mental aberrations.

Parents are not always able to recognize the signs of maladjustment in their children. Yet when an emotional difficulty is discovered early it can usually be resolved before a whole life is built upon it. School teachers, family physicians and public health nurses can be agents of prevention by detecting symptoms of personality disorders and referring children to proper treatment. The school room offers especially good opportunities to discover conflicts in children. The school health examination can be valuable in this respect. Judges of juvenile courts are presented with children exhibiting behavior problems often stemming from emotional upsets. In short, all those who work with children can become agents of prevention by being on the alert for the storm warnings of mental sickness.

The "child guidance clinic" grew out of the need to treat the behavior problems of juvenile offenders. The clinics are no longer limited to delinquents; they offer diagnosis and simple psychotherapy for all children in need. Counseling service for parents is an important part of their services. A psychiatrist, psychologist and psychiatric aide make up the usual staff of a child guidance clinic.

Preventive work, though most valuable in early years, is not limited to children. Psychiatric disorders are often not noticed until later in life. Early treatment can still ward off the development of a severe psychosis. It ought not to be necessary to enter a state hospital to obtain such therapy.

In certain localities, persons with symptoms of growing nervous disorders can go to a "community mental hygiene clinic." Here they can obtain diagnosis, psychotherapy and counseling. In many cases

this treatment is sufficient. When admission to a hospital is necessary, the clinic can help make the arrangements.

Some communities are not large enough to support such a clinic on a full-time basis. A "traveling clinic" covers a wide area by operating at regular intervals in selected towns. Several teams of psychiatrists and aides can serve a whole state by holding clinics in towns of strategic location several times a month. In addition to diagnosis and treatment, the traveling clinic can perform the important function of supervising paroled and discharged patients. The traveling clinic bridges the gap between the community and the state hospital.

An "out-patient clinic" located at a state hospital can be of great service to the surrounding territory. An example can be found at Farmington where each month thirty to forty persons receive treatment for mental maladies without being admitted to the hospital. The value of such a clinic is indicated by the wide reputation of the one at Farmington.

There is no program for prevention in Missouri. The Division of Mental Diseases operates no mental hygiene clinics. The state Division of Health has a number of maternal health and well-baby clinics under its direction. The division plans to train the personnel in these clinics in the safeguarding of mental health.

PUBLIC EDUCATION

Any preventive program must be based upon an enlightened public. People will not make use of clinical facilities unless they understand the value of early treatment. Public education is an important sideline of prevention.

For the great majority of the populace, mental illness is enclosed in a sheath of fear and ignorance. Half the battle against the disease is getting the public to realize that the personality disorder is treatable, that many will succumb to it, will receive therapy for it, and will return to normal, productive lives in their communities.

The scope of public education in mental hygiene is wide. Parents can be taught aids to healthy child development, the signs of emotional strain, and how to obtain early treatment. School teachers can be trained in the recognition of maladjustment. Physicians, ministers, judges and welfare workers can through education be made agents of prevention.

Because it is an arm of the state hospital reaching into a community, the mental hygiene clinic can be an instrument of public education. By means of educational films, lectures and demonstrations, it can reach school children and adult groups. Schools, parent-teachers associations and civic organizations can cooperate with the clinic in creating public understanding.

In Delaware, public school children are taught the fundamentals of mental health in classes in "human relations" that are gaining wide popularity and are spreading to other states.

Not operating community or traveling clinics, the Missouri state hospitals carry on only a limited degree of public education. They offer lectures and trips through wards to visiting high school and college groups. Superintendents and physicians give lectures before local clubs when called upon. Aggressive, widespread programs of public education cannot be conducted without reaching out into the state as a whole.

RESEARCH

Data compiled at two hospitals, Fulton and Nevada, showed that 43 per cent of the resident patients in 1947 were suffering from dementia praecox (schizophrenia). If a cure were to be discovered for this one affliction alone, the state hospitals could reduce their populations materially. Medical science is the first to admit that the mystery of mental disease remains unsolved.

Research is man's tool for probing the unknown. By it he has laid bare many of nature's secrets. It is possible that the answer to mental disease will come out of a research laboratory.

States, in their responsibility for the sick in mind, have an interest in research. They see it as an implement for attracting trained personnel and for improving the quality of treatment as well as a means to increase the knowledge about an obscure ailment. Those state hospitals carrying on research are noted for their capable doctors, their extensive treatment, and their high discharge rates.

Admittedly, not every state hospital can conduct a research program. Staffs must exceed the requirements; laboratories must be available. Some states have concentrated the functions of research and training in one central hospital operated in conjunction with an educational institution. In such hospitals young doctors receive training in psychiatry, and patients receive the benefits of treatment carried on in the light of research findings.

THE NATIONAL MENTAL HEALTH ACT

The development of preventive programs in individual states would be far more difficult were it not for a federal law enacted in July 1946. The National Mental Health Act² was designed to attack mental disease from the point of view of prevention rather than routine care and treatment. It is framed with the purpose of increasing local mental health facilities, expanding research and training programs and developing

²Public Law 487, 60 Stat. 421.

public interest and understanding. Under this law, the federal government becomes a partner with each state in the prevention of mental illness. Provisions in the statute call for grants-in-aid to states to help them develop clinics, research projects and training programs.

In order to qualify for federal funds under this act, states must designate a mental health authority and submit a plan and budget for a preventive program. Missouri has not received any funds under the law because the proper agency for handling prevention was not decided upon until July 1948. The Department of Public Health and Welfare has been named the mental health authority in Missouri. The department in turn has delegated the function of prevention to the state Division of Health. This division has made plans which include first, the training of all present field personnel in preventive mental hygiene; second, the coordination of prevention with existing state clinics of all varieties; in, the establishment of mental hygiene clinics and fourth, the use of traveling clinics. These plans have not yet been put into operation because of the inability to hire the necessary personnel.

The question has been raised as to the propriety of delegating the function of preventive mental hygiene to the Division of Health. though this division has programs of prevention for tuberculosis and syphilis, its interests are predominantly in the field of physical ailments. That it can acquire in addition the techniques of dealing with the mentally ill is subject to question. The Division of Mental Diseases, by the very nature of its work, already has the knowledge needed for carrying on a preventive program. In addition, the Division of Public Welfare has home visitors who could assist in this work. It would therefore seem that the function of prevention could best be carried on by all three of these divisions in close coordination. Since the three are grouped in Department of Public Health and Welfare under a single administrative head, the framers of the 1945 Constitution must have contemplated such an integration. The Division of Public Welfare comes in contact with mental illness through its case workers. The various clinics of the Division of Health serve many people; some undoubtedly have emotional disorders. Full use of these existing facilities could be made in preventing mental illness. The L vision of Mental Diseases needs to maintain contact with patients outside the state hospitals. Mental hygiene clinics under its jurisdiction could serve the double function of supervision and prevention. The need for the close integration of these three divisions is evident.

The deportation of non-resident patients is another field in which these divisions might work together. At present, a state harboring a mentally ill resident of Missouri requests the Division of Public Welfare to authorize the transfer of the patient to a Missouri state hospital.

The division, lacking authority in the matter, notifies the probate court of the person's county of residence. The court usually refuses to authorize the patient's return. A similar situation exists when a person from another state becomes mentally ill in Missouri. No state or local agency has the legal authority or funds to deport the person. The facilities for handling deportation already exist in Missouri; the granting of legal authority to some one agency and provisions for the payment of the necessary expenses are all that is needed.

STATE MENTAL HEALTH PROGRAMS

Some states have adopted the function of prevention, research and public education by means of legislation. Examples are to be found in recent laws of Arkansas and Indiana. On the Arkansas statutes is an act designed "to protect the mental health by providing for a state mental hygiene program." The law empowers the state division of mental hygiene to establish and direct mental health clinics and child guidance clinics. It also authorizes a program of education in mental hygiene in cooperation with civic groups and lay organizations.

An Indiana law gives the state mental health council the power and duty to establish and operate mental health clinics, to institute programs of public education and to construct and direct a hospital at the state university in order to utilize the personnel and facilities of the medical school in research and training in psychiatric disorders.⁴

By means of such laws and with the help of grants-in-aid from the federal government, many states have made progress towards the control and prevention of a disease that has long run rampant throughout the land.

* * * * *

Missouri is neither at the head nor the rear of the procession of states in the care of the mentally ill. The lurid charges which have been made so frequently of late against some states are not applicable here. Missouri state hospitals, on the whole, are well-managed, clean and as efficient as existing circumstances would appear to permit. However, lacking adequate personnel, modern methods of admission and programs of prevention, it must be admitted Missouri does only a fair job of treating her mentally afflicted. Some of the needs such as adequate hospital staffs, will not be met readily; but given the proper tools the Missouri state hospitals, without radical changes either in equipment or policy, could acquire high rank among such institutions in the nation.

³Acts Arkansas 1947, p. 122. ⁴Acts Indiana 1947, Vol. I, p. 215.



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